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ABSTRACT

The second of a series of four, this report contains much information never before available. Problems in obtaining the necessary information are discussed at some length, because of the bearing they have on interpretation of the data presented. Much of the volume consists of detailed tables showing enrollment in vocational education programs, broken down in various ways including grade level, age, percentage of total enrollment, special programs, occupational area, geographic area and youth groups. Other tables provide: breakdowns of total and per student expenditures at the Federal, State, and local levels; placement of students relative to their area of training; and enrollment by occupational cluster. Two further series of tables show changes in enrollment and expenditures in the past 2 years of the study and enrollment in various Federal programs. A summary, recommendations, and 59-page bibliography complete the volume. (NH)

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LEARNING A LIVING ACROSS THE NATION

PROJECT BASELINE
SECOND NATIONAL REPORT
Baseline Year: 1971-72 (Fiscal Year 1972)

Prepared For

THE NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

By

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PREFACE TO VOLUME II

The simultaneous publication of Baseline data from both 1970-71 and 1971-72 is accidental. Publication problems with the first volume caused a delay of so many months that it became advisable to issue both at the same time. In doing so, it was possible to eliminate duplication of many tables used in making comparisons between the two years. In addition to the tables, much of what was reported from the research of the first year held true for the second year as well, and is not repeated here in the same detail. For these reasons, Volume I is a necessary companion to Volume II.

There are extensive differences in the second volume from its predecessor. More time and effort were put into its preparation, with the first year's experience to guide the staff. Numerous new tables are included, most of which could not be produced the first year because the data were not available at that time. Many of the new tables represent only some of the States, because the data they contain have not been required by the Federal Government and therefore can be obtained only from States where they are being collected for the States' own purposes.

It must be noted again, as in the first report, that while the data presented here are presumed to be reasonably reliable, their accuracy cannot be attested to by the authors, by Northern Arizona University, or by the National Advisory Council on Vocational Education. They are the data supplied by local schools to their State agencies and by the States to the Federal Government.

Much more of the work on the second volume was done by the Division of Vocational Education at UCLA under the direction of Dr. Melvin Barlow. All of the narrative in Chapters III, IV, V, and VI, as well as the arrangement of materials and most of the analyses in these chapters, were the work of Robert Sartin, a doctoral student at UCLA, whose authorship is recognized on the cover and title page of this volume. Robert Sartin, Dr. Barlow, and others at UCLA have come to provide an extremely valuable extension of the professional staff responsible for this entire study.

Volume II reflects even greater assistance by a number of professional consultants than did Volume I. These include State Senator David B. Kret of Arizona; Mr. Fred Schmitt, Mountain States Computing; Mr. A. Leroy Malloy, Specialist, Vocational Information Services, Florida; Mr. Ray Barber, Director, Texas Division of Occupational Research and Development; Mr. William Stock, Senior Consultant, Program Planning and Development, Minnesota Division of Vocational-Technical Education; Dr. Janie Jones, Director, Occupational Information Unit, Bureau of Vocational Education, Kentucky; Dr. David Fretwell, Specialist, Manpower Analysis and Program Evaluation, Oregon; Mr. W.O. Schuermann, State Director, Career Education Division, Iowa; Dr. Roland Boldt, Chief of Program Services, Vocational Education Section, California; Dr. John P. Manning, Associate Commissioner, Division of Occupational Education, Massachusetts; Mr. Robert D. Balthaser, Assistant Director, Research, Survey, Evaluation and Exemplary Programs, Ohio; Dr. Charles J. Law, State Director, Division of Occupational Education, North Carolina; Dr. William Stevenson, Assistant State Director, Head, Division of Research, Planning and Evaluation, Oklahoma State Department of Vocational and Technical Education; Dr. Fred Bellott, Director, Bureau of Education, Research and Services, Memphis State University, Tennessee; Dr. Loyal Joss, Director of Systematic Studies, Oakland Schools, Michigan; Dr. Ralph Van Dusseldorp, Professor, Division of Educational Administration, University of Iowa; Dr. Robert F. Barnes, Director, Research Coordinating Unit, Colorado; Mr. Ralph K. Sylvester, doctoral student at UCLA; Mr. Parker V. Foster, doctoral student at UCLA; Dr. Gordon Swanson, Professor and Coordinator, College of Education, University of Minnesota; Dr. Jacob Kaufman, Professor and Director of the Institute for Research on Human Resources, Pennsylvania State University.

The participation by State Directors of Vocational Education in planning, research, analysis, review, and publication of this volume has also exceeded their very substantial contributions to Volume I. In both volumes, interpretations of data and conclusions have been entirely those of the professional staff, and may disagree at times with the views of the State directors. The data themselves have all been sent to each State director in the form in which they are presented here for examination and suggestions before publication. In addition to this, countless telephone calls to them and members of their staffs have been made in adding details, verifying facts, getting additional materials, and soliciting advice. Without exception, those interruptions in their work and the time and effort they have given to this research have been made with generosity and patience.

One group to whom a special debt of gratitude is due has served on a State Directors' Advisory Committee to Project Baseline. Others would have been equally willing to serve and would have been valuable additions, but it was only possible this year to ask these: Dr. Robert Seckendorf of New York; Dr. Francis Tuttle of Oklahoma; Dr. Charles Buzzell of Massachusetts; Dr. Charles Law of North Carolina; Dr. Carl Lamar of Kentucky; Mr. W.O. Schuermann of Iowa; Dr. Byrl R. Shoemaker of Ohio; Mr. John Guemple of Texas; Dr. Leonard Kunzman of Oregon; Dr. Samuel L. Barrett of California; Dr. Robert Van Tries of Minnesota; Dr. Sherwood Dees of Illinois; Mr. Joseph Mills of Florida; and Dr. Robert M. Worthington, former Associate Commissioner for Adult, Vocational and Technical Education, U.S. Office of Education.

In a very real sense, this report, like the first, is the product of untold hours of work by a great many persons throughout the Nation. At the center of this effort and contributing substantially to its results have been the members and staff of the National Advisory Council on Vocational Education. The Council's Committee on Research and Evaluation, particularly, has provided valuable guidance and constructive criticism on numerous occasions. Mr. Reginald Petty, Project Officer on the Council staff, has gone far beyond the requirements of his position to be helpful. Dr. Calvin Dellefield, Executive Director of the Council, has provided unfailing leadership and support throughout.

Credit should also go to Technical Education Research Centers, Inc. (TERC), Washington, D.C., Dr. Mary Ellis, Director, whose staff assisted in the field research and collection of data on which both volumes are based.

The authors hope that each reader will find this volume useful. It contains vast quantities of information, much of which has never before been made available. Patience and persistence may be needed in penetrating all there is to be found. For those who make the effort, we trust there will be more rewards than disappointments.

Chapter I

FINDINGS

All of the data in this chapter, unless stated otherwise, refer to Fiscal and school year 1971-72.

1. Vocational education continues to grow year after year -- the average annual rate of growth during the past decade was 14.5 percent.

    1-1 Enrollment in vocational education rose to 48.5 persons per 1,000 population in 1971-72, up from 44.4 in 1970-71. There was a fifty-five percent growth increase per 1,000 population during the past six years.

2. Fifty-six percent of the total vocational education enrollment was at the secondary school level in Fiscal year 1972.

    2-1 Forty-one percent of the nation's secondary school students were enrolled in vocational education classes. For individual States, the figure ranged from twenty-one percent to seventy-nine percent.

    2-2 Secondary school vocational education enrollment represented roughly thirty percent of the national age group of 15-19 years.

    2-3 In the eleven States and the District of Columbia from which data were available on the number of secondary schools offering vocational education (Arizona, California, Indiana, Mississippi, Nevada, North Dakota, Oklahoma, Rhode Island, South Carolina, Tennessee, Wisconsin, and the District of Columbia) seventy-seven percent of the schools had vocational education programs.

    2-4 Six States were able to report secondary school vocational education enrollments by grade level (Arizona, Colorado, Georgia, North Carolina, Pennsylvania, and South Carolina). In these States, the percent of the total enrollment represented by vocational education at each grade level was:

Ninth grade	Twenty-seven percent of total students
Tenth grade	Twenty-eight percent of total students
Eleventh grade	Forty-six percent of total students
Twelfth grade	Fifty-six percent of total students

2-5 Fifteen States provided enrollment figures on all occupationally related programs at the secondary level, including vocational education, industrial arts, general agriculture, and general business. In these States (Georgia, Hawaii, Idaho, Indiana, Kentucky, Mississippi, Nebraska, North Carolina, North Dakota, Oklahoma, South Carolina, Texas, Virginia, West Virginia, and Wyoming), containing a total secondary school enrollment of 3,324,651, there were 2,390,564 students in occupationally related programs, representing 71.9 percent of the total student population.

Of the 2,390,564 in occupationally related programs, 549,238 (16.5 percent of the total secondary enrollment) were in consumer and homemaking; 774,646 (23.3 percent) were in other vocational education programs; 566,046 (17.0 percent) were in industrial arts; 490,583 (14.8 percent) were in general business; and 10,051 (0.3 percent) were in general agriculture.

2-6 Only eight percent of the total secondary school vocational education students were enrolled in cooperative vocational education programs (exclusive of consumer and homemaking).

2-7 Twenty States provided information about the number of secondary schools offering cooperative vocational education (Georgia, Idaho, Kansas, Maine, Maryland, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, West Virginia, and Wisconsin). In these States only forty-two percent of the schools reported cooperative vocational education programs, ranging from a low of twelve percent in one State to ninety-one percent in the highest State.

2-8 Only 0.43 percent of the total secondary school vocational education students were reported in vocational work study programs.

2-9 Seventeen States provided information about the number of secondary schools offering vocational work study programs (Arizona, Georgia, Louisiana, Massachusetts, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Utah, Vermont, and West Virginia). In these States only 13.7 percent of the schools offering vocational education included vocational work study.

2-10 More than one-third of the total vocational education enrollment at the secondary school level was in five States (California, Florida, Illinois, New York, and Texas). These five States together accounted for 2,107,899 secondary vocational students out of a total for all States of 5,617,334 (37.52 percent).

2-11 More than half of the total vocational education enrollment at the secondary level was in ten States (California, Florida, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas). These ten States enrolled 3,050,413 secondary vocational education students (54.3 percent).

3. Thirteen percent of the total vocational education enrollment was at the post-secondary level. Percentages of total vocational education enrollments at this level within individual States ranged from 1.3 to 37.3 percent.

3-1 Post-secondary vocational education enrollment represented nearly eight percent of the age group 20-24 years; the range among the States was from 0.6 percent to twenty-six percent.

3-2 In the twenty-two States from which data could be obtained (Delaware, Georgia, Hawaii, Idaho, Kansas, Kentucky, Maine, Maryland, Missouri, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, and West Virginia) approximately fifty percent of the post-secondary schools offering vocational education included cooperative vocational education programs.

3-3 In the fifteen States that provided data (Arizona, Georgia, Hawaii, Kentucky, Louisiana, Maine, Minnesota, Montana, Nebraska, New Hampshire, North Carolina, Oklahoma, South Carolina, South Dakota, and Utah) sixty-seven percent of the post-secondary schools offering vocational education included vocational work study programs. (This refers to vocational work study only and does not include higher education work study, another Federal assistance program.)

4. Adult vocational education enrollment represented thirty-one percent of the total at all levels.

4-1 Adult vocational education was serving 3.4 percent of the age group 25-64 years.

4-2 Institutional training for apprenticeship constituted 5.6 percent of the total adult vocational education enrollment. The remaining 94.4 percent consisted of preparatory and supplemental programs for adults.

5. Vocational education programs designed especially for the disadvantaged and handicapped appear to be quite limited in number.

   5-1 Seven percent of total secondary vocational education programs were organized solely for disadvantaged students in the twenty-seven States from which data could be obtained (Alaska, Arizona, Arkansas, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Maine, Maryland, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, West Virginia, Wisconsin, and Wyoming).

   5-2 Twenty-five States (Arizona, Arkansas, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Maine, Maryland, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, West Virginia, Wisconsin, and Wyoming) reported that 3.1 percent of the secondary vocational education programs were organized solely for handicapped students.

   5-3 Nearly eight percent of the post-secondary programs in twenty-two States (Arkansas, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Maine, Maryland, Minnesota, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Tennessee, Texas, Vermont, West Virginia, Wisconsin, and Wyoming) were organized solely as programs for the disadvantaged.

   5-4 Five percent of all post-secondary programs were organized for the handicapped in thirteen States (Arkansas, Connecticut, Georgia, Hawaii, Idaho, Iowa, Kansas, Minnesota, North Carolina, Rhode Island, Tennessee, Texas, and Wisconsin).

6. Nearly three-fourths of the total number of vocational education students at all levels were enrolled in three major areas: consumer and homemaking (25.68 percent); office occupations (23.29 percent); and trade and industrial education (23.56 percent).

7. Ethnic group enrollments in vocational education were proportionately higher than the percentages of these groups in the total population.

	Percent of Total Vocational Education Enrollment	Percent of Total U.S. Population
Negro	16.6	11.1
American Indian	0.8	0.4
Spanish-surnamed Americans	6.1	(Not Available)
Oriental	1.0	0.5

8. Enrollment in youth group activities by vocational education students appears to be relatively strong.

8-1 The twenty-three States from which data could be obtained (Arizona, Arkansas, Connecticut, Florida, Georgia, Idaho, Kentucky, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, Tennessee, Texas, Utah, Vermont, and Washington) reported that seventy-six percent of the students enrolled in agriculture were members of Future Farmers of America.

8-2 Twenty-four States and Puerto Rico (Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Idaho, Kentucky, Maine, Massachusetts, Minnesota, Mississippi, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, Tennessee, Texas, Utah, Vermont, Virginia, and Puerto Rico) reported that thirty-two percent of the students enrolled in consumer and homemaking education were members of Future Homemakers of America.

8-3 Twenty-one States and Puerto Rico (Arizona, Arkansas, Colorado, Connecticut, Florida, Idaho, Kentucky, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Mexico, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont, and Puerto Rico) reported that fifty-two percent of the students enrolled in distributive education were members of Distributive Education Clubs of America.

8-4 Seventeen States and Puerto Rico (Arizona, Arkansas, Connecticut, Florida, Georgia, Kentucky, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, Oregon, Utah, Vermont, Virginia, Washington, and Puerto Rico) reported that eleven percent of the students enrolled in business and office occupations were members of Future Business Leaders of America.

8-5 Seventeen States and Puerto Rico (Arizona, Arkansas, Florida, Georgia, Idaho, Kentucky, Mississippi, Nebraska, Nevada, North Carolina, Oregon, Tennessee, Texas, Utah, Vermont, Virginia, Washington, and Puerto Rico) reported that twenty-one percent of the students enrolled in trade and industrial education were members of Vocational Industrial Clubs of America.

9. Vocational education reached a higher portion of the population in rural areas than in urban areas. In rural (non-SMSA areas) vocational education enrolled 7.03 percent of the population. In combined urban and suburban areas (SMSAs) vocational education enrolled only 4.82 percent of the population. In urban or central city areas, vocational education enrolled 4.72 percent of the population.

10. The amount of money reported spent for vocational education reached a new high of $2,654,338,633. Of this total, $464,487,460 (17.5 percent) was Federal money, and $2,189,851,173 (82.5 percent) was State and local money.

10-1 The reported per student expenditure for vocational education also reached a new high of $265.85. Of this total, $46.52 came from Federal funds, and $219.33 from State and local funds.

10-2 Federal dollar expenditures for vocational education have increased by 98.3 percent in the past six years -- from $234 million in 1966 to $464 million in 1972. However, due to inflationary losses, Federal financial support has increased only 51.3 percent -- to $354 million buying power in 1972 dollars. In this same period, enrollment in vocational education has increased 62.3 percent.

10-3 The Federal share of the financing of vocational education has declined over the past six years. In FY 1966 Federal funds comprised 29.2 percent of total expenditures; in 1972 Federal funds were 17.5 percent.

10-4 The matching ratio of State and local funds to Federal funds has changed from 2.42 to 1 in 1966 to 4.71 to 1 in 1972. State and local financial support for vocational education has increased almost twice as much as Federal financial support in the past six years.

11. Expenditures for secondary level programs in vocational education in FY 1972 totaled $1,744,002,000. This was 65.7 percent of the total expenditures for vocational education, 9.4 percentage points higher than the percent of vocational education students in secondary school (56.3 percent). Total expenditure per secondary student in vocational education was $310.47, of which $52.37 was Federal funds.

Financial data were not available in sufficient detail to permit display of expenditures for the three levels of vocational education, for each of the occupational areas and for Federal, State, and local funds. However, a review of data from seven States (Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia) on expenditures for the occupational areas at the secondary level reveals the following:

11-1 Expenditures for all occupational areas in the seven States totaled $55,710,780.

11-2 The largest expenditure for a single occupational area was $16,612,999 in trade and industrial education.

11-3 The second largest expenditure for an occupational area was $14,700,928 in consumer and homemaking.

11-4 The third largest expenditure for an occupational area was $12,524,808 in agriculture.

12. Total expenditures for post-secondary programs in vocational education came to $701,236,000. This was 26.4 percent of the expenditures for all vocational education, 13.4 percentage points higher than the percent of vocational education students classified as post-secondary (13.0 percent). Total expenditure per post-secondary student in vocational education was $538.15, of which $93.87 was Federal funds.

12-1 Expenditures for occupational areas at the post-secondary level were available from the same seven States as for the secondary level (Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia). The total expended was $24,741,007. The largest amount for a single area was $13,821,132 in trade and industrial education. The lowest, $119,347, was in occupational home economics.

13. Expenditures for adult programs in vocational education came to $197,602,000. This was 7.44 percent of the expenditures for all vocational education, 23.25 percentage points lower than the percent of vocational education enrollments in the adult category (30.69 percent). Total expenditure per adult student in vocational education was $64.49, of which $14.35 was Federal funds.

13-1 For the seven States from which data were available (Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia) the total expenditure for adult vocational education by occupational area was $4,317,580. The largest amount for a single occupational area was $2,099,293 in trade and industrial education.

14. Total vocational education expenditures (Federal, State, and local) for persons identified as disadvantaged were $286,786,154, representing 10.8 percent of all reported vocational education expenditures.

15. Total vocational education expenditures (Federal, State, and local) for persons identified as handicapped were $66,138,395, representing 2.5 percent of all reported vocational education expenditures.

16. Placement and follow-up data required by the U.S. Office of Education had not been submitted by thirteen States at the time this report was written. The remaining States, the District of Columbia and Puerto Rico (Alabama, Alaska, Arizona, California, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Iowa, Louisiana, Maine, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma,

Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin, Wyoming, the District of Columbia, and Puerto Rico) reported nearly half of the total number of persons who had left vocational education with marketable skills (49.97 percent) were employed. This included both those who had completed their programs and those who had left early but with marketable skills.

16-1 In the same thirty-seven States, the District of Columbia, and Puerto Rico, 95.5 percent of the total number who had left vocational education with marketable skills and were actually available for work were employed.

16-2 With very few exceptions, there was no indication that vocational education in the States had even approached the saturation point in labor demand in any reported occupational area. The extent to which vocational placements filled openings in the labor market ranged from a high of twenty-five percent in technical education to a low of ten percent in distributive education.

17. When all vocational education programs were classified into nineteen occupational clusters based on common competencies, instead of the seven traditional areas still used in vocational education, enrollment percentages nationally were as follows:

Occupational Clusters	Percent of Total Vocational Education Enrollment
Agriculture	6.48
Marketing	5.52
Health	3.33
Food Service	3.54
Accounting	3.32
Clerical	6.09
Secretarial	11.47
Industrial Mechanics	7.36
Construction	3.95
Electricity - Electronics	3.47
Metals	2.88

Child Care	2.12
Clothing	4.69
Drafting	1.39
Graphics	.68
Services	5.22
Forest Products	.24
Home Economics	19.12
Miscellaneous	4.28

18. Enrollment in occupationally reported training programs administered by the U.S. Department of Labor was 346,066. Of this total, 209,269 persons were enrolled in programs authorized by the Manpower Development and Training Act; 136,797 persons were enrolled in programs authorized by the Economic Opportunity Act.

18-1 Enrollment data were available by occupational code in five training programs administred under MDTA. The programs and their enrollments were: MDTA Institutional -- 132,736; MDTA On-the-Job Training -- 16,560; MDTA Part-Time -- 4,373; MDTA JOP Entry -- 51,152; MDTA JOP Upgrade -- 4,448.

18-2 Enrollment data were available by occupational code in six training programs administered under EOA. The programs and their enrollments were: Work Incentive -- 37,360; Concentrated Employment Program -- 42,442; Neighborhood Youth Corps -- 38,110; Operation Mainstream -- 10,302; Public Service Careers -- 7,277; New Careers -- 1,306.

18-3 The manpower training program involving the largest number of trainees was MDTA Institutional, with 38.4 percent, more than one-third of all MDTA and EOA programs combined.

Male enrollment in MDTA programs was over twice that of female enrollment (sixty-eight percent). In EOA programs, male and female enrollments were more nearly equal: fifty-four percent male and forty-six percent female.

18-4 Minority groups were enrolled in occupationally reported USDL programs in percentages in excess of their respective percentages in the general population, with a single exception (Orientals in EOA programs).

	Percent in MDTA Programs	Percent in EOA Programs	Percent in Total Population
Negro	28.7	40.0	11.1
American Indian	2.2	3.3	0.4
Spanish-surnamed American	(NA)	(NA)	(NA)
Oriental	0.54	0.41	0.51

19. Federal expenditures for vocational education ($464,487,460) were less than half the Federal funds allocated for MDTA and EOA programs combined ($1,016,370,000).

19-1 The Federal cost per student in vocational education was $46.52. The Federal allocation per trainee in MDTA programs was $2,028.74. The Federal allocation per person in EOA programs, based on occupationally reported numbers enrolled, was $4,326.24.

20. Vocational education nationally showed only slight measurable changes from FY 1971 to FY 1972.

20-1 Percent of changes in total vocational education enrollment, and in the educational levels, from FY 1971 to FY 1972:

Total	+ 9.25 percent
Secondary	+ 9.05 percent
Post-secondary	+14.28 percent
Adult	+ 7.59 percent

20-2 Difference in percentage points in vocational education enrollment, related to age group were:

Secondary (15-19 years)	+2.9 percentage points
Post-secondary (20-24 years)	+1.2 percentage points
Adult (25-64 years)	+0.3 percentage points

20-3 Vocational education enrollments per 1,000 population increased by 4.1.

20-4 Difference in percentage points in enrollment in the occupational areas as a percent of total vocational education enrollment:

Agriculture	-0.4 percentage points
Distributive	0.0
Health	+0.4 percentage points
Consumer and homemaking	-1.1 percentage points
Occupational home economics	+0.5 percentage points
Office occupations	-0.9 percentage points
Technical	-0.1 percentage points
Trade and industrial	+1.2 percentage points

20-5 The percent of disadvantaged persons in vocational education increased 0.7 percentage points. There was no change in the percent of handicapped persons.

Chapter II

THROUGH A GLASS DARKLY

In this volume, like the first, the data used are neither uniform nor complete. In many cases they are obviously inaccurate, and can easily be misleading. To use them at all raises a question about the value of summaries, analyses, and conclusions based on this kind of material. The answer is, it is the best there is. Either an imperfect picture must do until a better one is possible, or no picture at all can be presented. The assumption in Project Baseline is that a cloudy image is better than darkness.

Hopefully, the data will improve as their usefulness becomes more evident and methods of collection and transmittal are improved. There is evidence of this in the two years of research Project Baseline has completed. Still, the researcher is constantly torn between the increasing revelations better data make possible and the doubts that remain because so much poor data must still be used.

MAJOR PROBLEMS IN CURRENT INFORMATION SYSTEMS

There are numerous problems with the data being collected by State and Federal agencies which should be recognized, and these problems should be dealt with if the Government's responsibility for public funds is carried out. They fall into three groups: problems of definition; problems of communication; and problems of careless or dishonest handling of data. Throughout this report all data are used with particular attention to what they actually represent, not what they may appear to be. Having done this, it is necessary to speak frankly about the data problems with which State and Federal agencies are confronted.

Definitions of vocational education. The most difficult problem of definition is that of vocational education itself. Enrollment figures at every level and in all programs are based on the criteria used to determine which courses to include and which ones to omit. Cost-per-student figures, completions, job placement percentages, and measurement of the impact on the employment market and on target populations all depend on this definition. Valid national reporting and assessments are impossible without a standardized defintion using the same criteria in each State, but no such definition exists.

As it is, some States continue to follow the practice long established in vocational education of including in their reports only Federal or State reimbursed programs. This has the advantage of simplicity, but to define vocational education on such a basis assumes that reimbursement practices in all States are the same. Not only is that not the case, Federal legislation of the 1960s made this kind of national conformity virtually impossible. Situations vary so much from State to State that any policy which failed to allow, and even encourage, variations in State reimbursement plans would do a disservice to vocational education.

A second method of defining vocational education, and one used in a number of States, is for the State Department of Vocational Education to prescribe conditions which have to be met by a course for it to qualify as vocational education. These usually include the number of hours the class meets per day or per week, the level at which it is taught, and the instructor's qualifications. One or two States require that courses must be part of prescribed programs to qualify as vocational education.

The problem here is that regardless of how well intended the criteria may be, they introduce an element of rigidity which may defeat the purpose of an honest and realistic definition of vocational education. Local schools may not wish to comply with all of the State-prescribed conditions, and there is no effective way to make them do so without tying reimbursement to these conditions. Even where this is done, there are are examples of schools refusing Federal and State vocational education funds in order to set their own policies.

The situation raises serious questions about the validity of all vocational education statistical data in many States. Without a compelling reason to meet State-prescribed criteria in reporting enrollments, expenditures, and follow-up, and with the added disadvantage of having to fill out State and Federally required report forms, local schools may eliminate vocational education programs. They might retain some shop courses identified as industrial arts, and office courses identified as general business, but these would fall far short of training for entry-level skills. To what extent this is done is not known, but that it is done is well established.

The only alternative, and the practice now followed in most States, seems to be to let the local schools define vocational education any way they want to. If it were not for some fairly well established traditions and honest efforts to report accurately, this would be chaotic. At best, it results in data which lack uniformity and standardization. Too often, the traditions still followed exclude many students and programs which perhaps would be recognized as vocational education under more current definitions. Leaving the definition up to local schools is a convenient way to dispose of the question, but in fact means no definition at all. Over-reporting, under-reporting, and confused reporting are almost inevitable.

There are other problems of definition in vocational education. Adult and post-secondary programs mean different things in different States to such an extent that national figures for each separate category are virtually meaningless. It is usually assumed that post-secondary vocational education is regular daytime instruction in a post-secondary institution, while adult vocational education is instruction for persons who are no longer in school. The trouble with these definitions is that they mix institutions and persons, as do the two categories. Post-secondary and adult in terms of institutions usually mean the same thing. But, adult programs are offered in both secondary and post-secondary institutions. In relation to people the terms are interchangeable.

Another facet of the problem, not widespread but nevertheless existing in a few States, is that both post-secondary and adult programs are offered in four-year institutions. These usually come under the jurisdiction of State boards of regents for higher education rather than the State agencies responsible for secondary and community college programs. Consequently they are not reported as vocational education at all, either at the State level or to the Federal Government. They are one- or two-year terminal programs, which by definition should be reported, but because of a jurisdictional situation are overlooked.

Another definition problem which should not exist is that of handicapped and disadvantaged. The Vocational Education Amendments of 1968 define these terms quite well, but in practice they often become blurred. The trouble seems to be not so much in applying the definitions to particular students, but in the next step of deciding what constitutes special vocational preparation for these students. And here we are back to the problem of defining vocational education. It can be argued, for example, that if a person in a wheel chair is enrolled in a program which the local school or the State defines as vocational education, then that handicapped person is receiving special preparation in the normal course of assisting him to be trained in a wheel chair.

This, however, leads to the practice of assuming that all persons identified as handicapped or disadvantaged and enrolled in vocational programs are receiving special preparation, which defeats the intent of the 1968 legislation. It would seem to be equally defeating, on the other hand, to require that certain standardized conditions be met in order to report handicapped or disadvantaged vocational education students as receiving special preparation. The prescribed conditions in that case could become either formalities without any real benefits, or obstacles in fitting special preparation to each individual's needs, or both.

A technical problem in definition, one that makes it very difficult to relate vocational education to the employment market, is the way vocational programs are classified. Traditionally they have been administered in the U.S.O.E. and in the States by "service". Agriculture was one service, home economics another, and office occupations another. For the most part these followed lines of occupational grouping, but at least two of the services became so broad that their occupational identity was obscured. One of these, trade and industrial occupations, ranged from the mechanical trades through construction to cosmetology and some of the health programs. The other, technical programs, included everything at the post-secondary level. Services in the administrative organization of State agencies have been largely replaced since the Federal legislation of 1968, but programs and students are still being reported by those classifications. They are too broad to give any meaningful data for impact on the employment market, and employment market needs reported by these definitions do not provide students with meaningful information.

The current alternative is to use separate data for each job classification, and several hundred of these are represented by vocational education programs in most States. These classifications are just as meaningless in relating vocational programs to the employment market because they are too narrow.

For example, courses in electrical technology and electrical occupations have two different numbers, 16.10 and 17.14 respectively. Employment information may indicate a surplus of electricians but a shortage of electrical technologists. In spite of employment market opportunities, students and vocational educators may be discouraged from going into general electricity programs because they require courses which by themselves appear to be oversupplied. In this report one set of tables has grouped all vocational education courses into clusters. This suggests a method of overcoming the difficulty, and it is hoped that a standardized cluster grouping by the U.S.O.E. and the U.S. Employment Service is on the way.

Still another problem in definition is that of "completion". Some States consider any student who finishes a vocational course, i.e. Typing I, a completion regardless of grade, skill obtained, or length of course. Other States report as completions only those students who successfully complete a full vocational program, i.e. a two- or three-year program that includes typing, general office practices, shorthand, and business machines. Still other States show only graduating seniors enrolled in vocational courses or programs. Under these circumstances there is no possible way to determine nationally how many vocational students have completed their training with job entry skills.

These are not by any means all of the problems of definition in vocational education, but they indicate the nature and extent of the problem. A naive solution which suggests itself to the casual observer is to discontinue reporting vocational education. That is about as helpful as to discontinue reporting automobile deaths on the highway because no other solution seems to work. Admittedly, the two problems are not equally serious, but to abandon vocational education reporting because definitions and accurate reporting are difficult is to ignore the responsibility of government, both legislative and executive at each level, in accounting for the educational policies being followed and the funds being used to support them.

Problems of communication. Vocational education reporting probably suffers more from a breakdown in communications among local, State, and Federal levels than from any other problem including that of definitions. The lack of definitions is in itself a problem in communications. There are others. Programs in local schools are being identified as vocational education but are not being reported, the reason in many cases being simply an absence of communications. Industrial arts courses are preparing students for jobs in construction, machine shop, printing, woodworking and other areas; and their existence remains unreported even though the Occupational Education Act of 1972 specifically adds industrial arts to the definition of vocational education. Probably very few educators know this, and the information has not been widely communicated.

One of the most serious distortions in reporting in some States is to count as enrollments in vocational education all elementary students in grades 1-6 who receive a unit of pre-vocational studies. Again, this is not a question of definition, because Federal legislation now includes these students in the vocational support program. It is a question of proper information reaching the States from the U.S.O.E. about what kinds of data to report in different ways, and similar communications between State agencies and local schools.

This is, in fact, the bane of most data input forms designed by one person or agency for use by another. The intent of the designer is not communicated properly, either in the terms used in the instrument or in the accompanying instructions. They literally appear to mean one thing to one person and something else to another.

When the Federal report form asks, for example, for the number of completions from the previous year employed in occupations for which they were trained, what happens in reporting those who were trained in two occupations or a hyphenated occupation like agri-business? The absence of communications on this point accounts for wide variations in the practices of different States. Probably a means should be devised so both occupational areas could be considered in reporting the follow-up of such students. Instead, any of several arbitrary methods of selecting one area is used, and if the selection is wrong the information reported is wrong.

The Federal report form for follow-up data is almost a classic in poor communication. It asks only for data which show a single result of vocational education at a single point in time. If former students are not employed in jobs related to their vocational programs at the time the follow-up questions are answered, no one will ever know what good their education did them. If temporary economic conditions cause unemployment at the time, or personal reasons prevent working, the only information communicated is that vocational education was a failure.

There are many examples of this problem in the whole set of Federal report forms, and since these forms are the basis for, or the only forms used by, most States to collect their own information, the problem is compounded many times over. Another serious example is in reporting educational professional development in vocational education. Quantitative data only are asked for — how many persons received pre-service or in-service training. The extent or kind of training is unknown. Its relationship to any evidence of actual professional development is completely ignored.

Perhaps the most glaring example of a failure in communications is in reporting instructional personnnel. Head counts alone are requested. It would be fairly simple to request full-time equivalents, but this is not done. The numerical strength or weakness of vocational education teachers in each State and in the Nation as a whole cannot be known from these figures, since many are teaching only part time, teach in more than one area, or teach at more than one level.

Project Baseline has encountered one very difficult problem, which leads to the distortion of financial reporting in all States. Federal expenditures must be reported by Fiscal year to the USOE, and these expenditures should show that the provisions of the 1968 Amendments have been met. In other words ten percent for handicapped programs, fifteen percent for disadvantaged programs and fifteen percent for post-secondary programs. The problem arises from budgeting practices and the flow of Federal cash. The percentages may be set aside and budgeted, but not entirely spent when the Fiscal year ends.

Ordinarily this situation will balance itself out over two or three years, but in the meantime a State may appear to be in violation of Federal law in the expenditure of its vocational funds. The problem has been made worse in the past several years because Congress failed to pass an appropriations bill before the Fiscal years began, and last year failed to pass one at all. States have program commitments, grants and contracts pending, and an overriding obligation to keep vocational education going in the schools. Faced with the uncertainties surrounding Federal funds, they have often had to maintain a reserve of carry-over money from one Fiscal year to the next which throws their actual percentage expenditures considerably out of line.

Problems of careless or dishonest handling of data. Most information systems in use today make it impossible to know how much distortion of data is caused by mistakes in copying or in arithmetic and how much is intentional or unintentional. The desire of every administrator to look good probably results fairly often in padded figures when manually operated systems are used. This is possible in partially automated systems and manual systems with or without documentation, but much more likely in the manual systems. Nearly every State that has automated its vocational information system at the State level has shown a sharp drop in enrollment the first year. Some States have been very reluctant to use automated systems because of this. One State took three years to phase into an automated system to avoid showing a sudden drop in a single year.

Follow-up data are often viewed with suspicion for the same reason, especially if supplied by former teachers. Enrollment data on which State and Federal reimbursements are based are particularly susceptible to distortion in favor of higher payments. One State has put a six-man team into the field auditing handicapped enrollment figures, since an extra reimbursement is made for these. The first year nearly two million dollars was recovered, and handicapped enrollment figures dropped sharply the next year.

One of the most obvious examples of data contamination, or simply fabricated reporting, is in State and local expenditures for vocational education. The great majority of school districts simply do not know what they spend for vocational education. Most school accounting systems are designed to show costs by function, not purpose. Instructional expenditures for vocational education can be reported, together with supplies and equipment. Beyond this, expenditures for such things as buildings, utilities, and janitorial services are not allocated to instructional programs and therefore can only be estimated or simply ignored.

The result is that, while the Federal report form calls for this information, everyone knows it will not be accurate and many States supply meaningless figures. In reporting State and local expenditures combined, some States show merely enough to satisfy the Federal matching requirement. They avoid reporting too much State and local effort, because Federal regulations also require them to show an increase each year. They want to be in a position to do so even if there is no actual increase.

ASSESSMENT OF THE STATE OF THE ART

This chapter is a frank appraisal of State and Federal information about vocational students, costs, instructional personnel, instructional programs, facilities and equipment, and what happens to students afterwards.

What do the State agencies know, and what do they only guess at, or not know at all? The Federal Government knows less than the States, but how much less?

What, on the other hand, can the States and the Federal Government collect in the way of additional data and more accurate data? What should be collected? More importantly, how should these data be collected, transmitted, summarized, analysed, and reported in order to give the public -- and its representatives, the State Legislatures and Congress -- an accurate and adequate accounting of vocational education and manpower training?

There are as many variations in data or management information systems as there are States. No two are alike. For purposes of examining and reporting the characteristics of these systems, what they do and what they do not do, and the reliability of the data they produce, it is possible to divide them into four or five categories. Each category can be further subdivided, and there are numerous variations within each of the subdivisions.

In order of descending reliability, systems which depend completely on modern computer equipment rank at the top. One obvious reason is that the data cannot be administratively edited or contaminated. Just as important, and probably more so, great quantities of these data can be processed in a fraction of the time required by manual systems. Thus they are usually more up to date and more complete.

Very few completely automated data systems are yet in operation, although a number of States are moving in this direction. Tables 1, 2, and 3 show the systems in use by each of the States, the U.S. Office of Education, and the Manpower Administration in gathering enrollment data, follow-up data, and financial information respectively. These are discussed under separate headings below.

Next in order of reliability are partially automated systems. Most States moving in the direction of automation have reached this point in one or more of their subsystems. The advantages of even partial automation are some measure of the advantages of full automation. The disadvantages affecting the reliability of the data are quite common: the possibility of administrative editing and contamination, and severe limitation on data analyses because of the use of gross figures instead of individual data.

The latter disadvantage is so serious in the use of student enrollment data that two classifications are used here in assessing this component of State systems: partially automated systems using individual student data, and partially automated systems using gross data. As can be seen from Table 1, there are no States yet in the first category, and there are twenty-three in the second.

The third classification of State and Federal information systems in descending order of their reliability is that of manual systems with documentation. These are widely used and have the merit of an audit trail, even if the documentation may be less than satisfactory. It can probably be assumed that most systems of this kind are fairly reliable. Their chief limitations are in the kinds of restrictions that result in tabulation of large quantities of data, and in the lack of flexibility with which data may be used in making analyses.

Some components of State systems employ computer equipment but are placed in this category because the computers are used merely as adding machines. This is particularly true of student follow-up systems in which the responses are keypunched and tabulated by computer -- and sophisticated analyses may even be made -- but the responses are not validated. It does little good to feed invalid data into a machine; the invalid results might just as easily be developed manually.

Last in the order of reliability is the category of manual systems without documentation. There are no Federal systems as such in this category, but some of the information gathered for Federal systems should be so classified. A good example is local expenditures for vocational education. No attempt is made to standardize the information requested, and documentation on a uniform basis is therefore impossible. It might be argued that, lacking standardized definitions, there may still be documentation for the data reported. In other cases this is true, i.e., vocational education students reported on standardized forms, but local expenditure data are not even standardized within States.

The most familiar example of a manual system without documentation is the practice of State Vocational Education Department supervisory personnel collecting enrollment totals from teachers within each service, using different methods of counting and transmitting the figures, and considerable discretion in making tabulations to be reported. Systems in this category not only lend themselves to administrative editing and error, but manipulation is virtually built in.

In the remaining assessment of State and Federal information systems, six major components will be considered: (1) Student data; (2) Follow-up data; (3) Financial data; (4) Instructional personnel; (5) Instructional programs; (6) Facilities and equipment. For the most part, automation of student data components has been developed first and is currently more advanced, followed by the financial data component and follow-up data in that order. These are components most needed for evaluation and accountability, and each of these is discussed in a separate section below. Instructional personnel information systems, when limited to satisfying the requirements of the U.S. Office of Education, are so inadequate as to be almost meaningless.

Many of the States, have systems which go beyond this in instructional program information, and facilities and equipment inventory systems. Program data components are being developed in a few States.

STUDENT DATA SYSTEMS

Completely automated. Table 1 shows how each State and the Federal agencies collect, transmit, tabulate, and analyze student data. Under a completely automated system, all data originate in the the Local Education Agency (LEA) enrollment process. They are then copied on magnetic tape or punch cards and transmitted to a State facility. Tabulations and analyses are programmed and made by computer, with the flexibility that only individual student files make possible. Computer audits may be run to prevent administrative editing or contamination after data leave the LEAs.

Although no State has yet set up a completely automated student data system, several are in various stages of development. The distinguishing characteristics for such a system: Student data would be taken directly from LEA enrollment records, not duplicated on special forms to be filled out by students or teachers or anyone else. They would be transmitted from LEAs to State computer facilities in machine language through the high speed input means available -- tape, punch cards, or on-line. Tabulations and analyses would be printed out according to programs requested by the State department for its own management information purposes and for Federal and other reporting.

Partially automated using individual data. Twenty-three States are using partially automated student data systems in which individual student data are collected. It is the most common form of automation in use in vocational education today, and a number of basic similarities are found in nearly every system of this kind in the States.

In partially automated systems using individual student data, the completed forms must be transmitted manually -- usually mailed -- from LEAs to State computer facilities, where they are processed. Administrative editing and contamination cannot be prevented, although in most cases the assumption can be made that this is not done.

The biggest problem in the first few years of using this kind of system is communication between the managers of the system at the State level and teachers and students in the LEAs. Data items are misunderstood or improperly marked; instructions are overlooked or ignored; time schedules for transmission are missed; and nearly everything else that can go wrong usually does.

In the end, however, very nearly the reliability of a completely automated system can be achieved. In the great majority of States using student data systems in this category, that has probably occurred. Two serious problems remain, however. One is cost, and the other is the work load imposed on LEA personnel who are required to have students fill in on additional forms the same information they supplied during enrollment. The duplication of keypunching alone, when scanning equipment is not available, runs up the cost considerably.

Partially automated using gross data. Partially automated student data systems using gross data (class totals) are found in nineteen States. They may be quite sophisticated, and some of them are, but they suffer from this serious deficiency: The only tabulations and analyses that can be made are those already built into the collection documents. For example, Ohio collects the number of students in each occupational program, the number of males and females, the number of students in each ethnic group, and the number of students within each ethnic group who are disadvantaged or handicapped. But there is no way the computer can tell how many students in one occupational program are Black, disadvantaged, males, or compare such a figure with Spanish-surnamed Americans or non-disadvantaged, etc. The flexibility and detailed analyses based on individual student files are missing.

Nor can administrative editing and contamination of data be prevented. It cannot be assumed that this is done, but there is no assurance it is not. Another serious problem with partially automated gross data systems is determining the actual number of students (an unduplicated count) enrolled in all programs. In class total reports, the same student may be counted several times if enrolled in several classes. An unduplicated count in such States can only be estimated.

The distinguishing characteristic here is that class or school totals only are supplied by the teachers or the LEAs on standardized forms prescribed by the State department, and these are keypunched and the tabulations made by computer.

Manual systems with documentation. Until a relatively few years ago all information systems used paper files, and data were copied from these to transmittal and tabulation sheets. States and LEAs which are not using automatic data processing equipment are still using such manual systems. In educational reporting there are essentially two kinds of manual systems, one with documentation and the other without. The difference is simply that standardized forms and procedures are used in the one case and not in the other. If the forms are signed or it is known who handles them, an audit trail can be maintained. Documents can be preserved, identified, and rechecked later for verification of data reported.

Under this kind of system, only class totals originate on special standardized forms, are transmitted manually and tabulated manually. It would be possible for individual data to be handled in this manner, but the volume would be too great to be practical. Therefore, analyses based on individual data cannot be made. Administrative editing and contamination cannot be prevented. Editing and errors in copying are highly probable.

Manual systems without documentation. These are the systems widely used until just a few years ago, and some States still use them. The data originate with teachers or LEAs supplying someone in the State department with class totals. Standardized forms are not used, or if they are, they are standardized only for individual services. The gross data are transmitted manually or orally. Tabulations are made manually from a variety of data thus channeled into the State department. Analyses based on individual data cannot be made. Administrative editing and contamination cannot be prevented. Editing and errors are virtually inevitable. The distinguishing characteristic here is that standardized forms are not used by the teachers or LEAs in transmitting the data, even though State department personnel may use standardized forms in requesting the data.

FOLLOW-UP INFORMATION SYSTEMS

Completely automated. In a completely automated follow-up information system questionnaires are usually addressed by computer to former students and sent to their home addresses. It makes no difference whether the follow-up is of a total population or of a statistical sample. In either case, however, the response must be statistically valid. If sent to a total population, and the response is less than eighty percent, the non-respondents must be sampled and the results of that sample correlated with the other results. In using a sample, both the sample and the response must be statistically validated.

It is also customary in a fully automated follow-up system for the completed questionnaires to be sent directly to a State facility for machine reading or keypunching and computer tabulation and analysis. Only one State, Pennsylvania, has its entire follow-up system fully automated in this way. Two States, Maryland and New Jersey, have portions of their follow-up being handled in this way, and in New Jersey full automation is anticipated in the near future. One other State, Oklahoma, has a fully automated follow-up system even though it uses a manual operation in validating the results through a second follow-up of a statistical sample.

The distinguishing characteristics of this kind of system are these: Data already stored on magnetic tape or punch cards containing former students' names and last known addresses are used in developing the list to be followed-up. No arbitrary selection is possible. The computer is programmed on the basis of selected criteria, and all former students whose records contain those criteria will be listed. The data are obviously subjective, as all follow-up data must be, but they are supplied by the students or families of the students rather than by teachers or administrators, except in cases where such results are validated. The questionnaires are sent directly to a computer facility where the data are again automatically recorded and tabulated.

Partially automated. Table 2 shows that thirteen States have partially automated follow-up information systems. These are the same as completely automated systems except for two limitations: A manual operation takes place at some point in the process, and/or the response is not statistically valid. Information is still gathered on an individual basis rather than by class or other gross figures, so analyses of the results may be made using a variety of student characteristics. If a manual operation is included somewhere, this is usually selection of the mailing list to be followed-up, or teachers or other LEA personnel supplying the information about former students, or the State department or LEA editing the results before keypunching.

In any case, the response may also lack statistical validity. It may represent less than eighty percent of those being followed-up. Several States have found it so difficult to get a valid response when questionnaires are sent only to the former students or their families that they have decided against this procedure. Instead, teachers or other LEA personnel are asked to supply the information about each former student. The response in these cases approaches 100 percent and is therefore statistically valid. The reliability of the data used, however, is only as good as the measures used to assume that teachers or other LEA personnel actually know the information they are reporting is accurate.

Manual systems with documentation. Twenty-eight States have part or all of their follow-up systems established in this way. Mailing lists are developed by hand from LEA or State records and questionnaires mailed from one of these agencies. Either individual or gross (usually class totals) data may be collected, but standardized forms must be used. The forms may be returned either to the LEAs or the State department for tabulation, and this is usually done by hand. Office machines may be used, such as addressographs and calculators, and as noted before, even computers may be used, but if follow-up data pass through a manual and editing process at the LEA level, the advantages of even partial automation have been lost. These systems are still distinguished from those without documentation by the use of forms with instructions to the students or LEAs for filling them in, and these forms can be retained for back-up verification of the final tabulations.

Manual systems without documentation. These are still used in seven States. They are the same as with documentation except that the data are usually gathered by teachers, other LEA personnel, or State agency personnel in a variety of ways — classroom records, correspondence, telephone calls, and personal knowledge. Administrative editing and contamination cannot be prevented and are virtually certain. This does not mean that the results are unreliable; in fact, they may be reasonably accurate. But there is no way to check them and no back-up. They must be accepted entirely on faith.

FINANCIAL REPORTING SYSTEMS

Completely automated. In completely automated financial reporting systems, expenditure data originate in the bookkeeping operations of each LEA, and computer equipment is used in the posting process. Financial data needed for management information are copied on magnetic tape or punch cards and transmitted either directly or through subdivisions to the State department. One essential feature of a completely automated education reporting system is that each LEA enters expenditure data by instructional program. including pro-rated expenditures for such items as administration, overhead, and capital expenditures. Computer programmed tabulations and analyses are then made at the State level using the flexibility of individual class or program expenditure allocations.

Administrative editing or contamination is virtually impossible. This however, is not the principal reason for fully automated financial reporting systems, because partially automated or manual systems with documentation may be just as reliable. Financial records are subject to audit, and the data used may usually be assumed to be accurate. The principal advantage gained through automation is in allocating the expenditures by instructional program. This can be done in a manually operated system, but requires extensive work. In computer operations, pro rata expenditures for individual classes, departments, programs, and other instructional units can be determined and programmed into the computer's memory. Expenditure items are pro-rated automatically by the computer and posted according to codes previously assigned. It is the only way accurate cost per program and cost per student data for different courses of study can be determined accurately.

Partially automated. Twenty-five States have developed automation of their financial records to some extent, as shown in Table 3. Expenditure data originate in the bookkeeping operations of the LEAs and are transmitted to the State level, where they are keypunched, and computer-programmed tabulations and analyses are made. The systems in these States, however, have at least one of the two conditions that mean financial reporting systems otherwise automated must be classified as partially automated. These conditions are the following: instructional unit expenditures are not included, and data are copied or transmitted manually.

In partially automated systems, high speed computer equipment handles large volumes of data accurately. But, the flexibility of using individual program or class expenditures may be missing, and there may be opportunities for editing and contamination.

Manual systems with documentation. In these systems, expenditure data are copied manually from LEA records, almost certainly without class or program allocations, and transmitted to the State manually. Manual tabulations are made, and these cannot include cost of instructional programs, without these data being available and transmitted by LEAs. Administrative editing and contamination cannot be prevented, and the likelihood of error is always present.

Manual systems with documentation may be considered highly reliable, but are subject to careful interpretation. The data thus developed mean only what those individuals at each level know them to mean. Back-up documentation is available and an audit trail can be maintained, but care must be used in the way these data are used and interpreted.

Manual systems without documentation. There are no State financial information systems which can be classified as manually operated without documentation. In such a classification, expenditure data would be supplied by LEAs after selection and administrative editing, and would never include instructional unit allocations. They would be transmitted manually and tabulated manually. Detailed analyses would not be possible.

INSTRUCTIONAL AND PHYSICAL INFORMATION SYSTEMS

Information on instructional personnel, instructional programs and facilities and equipment has not received as high a priority among the States as other categories. This is probably due to a wide variety of factors, including: (1) The lack of U.S.O.E. reporting requirements for this type of information; (2) The existence of systems supplying partial data, e.g., teacher accreditations systems; and (3) A general shortage of resources for development. The lower priority of these information categories is not represented in Table 4. This table omits categorizing States along the completely automated to manual system range because the nature of these data do not lend themselves to this categorization.

It is significant to note that despite the lower priority, twenty-one States have established some method of satisfying their own perceived management information needs in regard to instructional personnel, programs, facilities and equipment. Thirty-three States have done so for personnel and thirty States for program at all levels of vocational education. When one considers the kinds of management information made available through these efforts it is not difficult to understand why, despite the factors mentioned above, the States have persevered.

In the categories of instructional personnel and programs these States probably have data available that are invaluable in State-wide planning. Data on the training, experience, and age of instructional personnel are essential in the contemplation of major changes in program emphasis, and in the allocation of resources for teacher education and in-service programs. Data on instructional program length, emphasis, and contact hours are invaluable in consideration of vocational education's contribution to manpower supply. The implications relative to accountability are, of course, obvious.

In the categories of facilities and equipment the States probably have available a wealth of information to support their planning and budgeting efforts. Data on the age, capacity, and general characteristics of instructional facilities are vital in planning change in training emphasis or direction. Data on equipment depreciation and locations are required for any consideration of resource requirements or program shift.

Because data from various systems can be combined, the thirty-three States having instructional personnel information and the thirty having program information are in an extremely enviable position. For example, consider the uses of information acquired by combining students' end-of-class status and placement with the contact hours of instruction these students received, and comparing these data with the costs of programs in different locations.

STATES WITH THE MOST ADVANCED INFORMATION SYSTEMS IN OPERATION

When the classification of the various automated vocational information systems in operation was begun by Project Baseline, it became evident that eleven States could not be put into narrow classifications without some type of clarification. The States below are in this category because of some elements in their information systems that made them outstanding.

Arizona

Arizona has an automated information system for vocational education which is patterned after one developed by the Ohio Center for Vocational and Technical Education. Modifications have been made in the original system in order to make it more effective for use by Arizona. Subsystems include enrollment, follow-up, instructional personnel, and instructional programs. (The subsystem for vocational education equipment is included in the State's equipment inventory, and can be pulled out any time it is needed.)

Much of the enrollment data is received directly from local education agencies' computer tapes or punched cards. All of the community colleges and four of the large schools districts provide the Division of Vocational Education with enrollment data in this manner. All other student enrollment data are collected through individual student enrollment cards.

In 1972-73, instructional program data collected by Arizona were quite complete. There are forty-seven data elements on the form used for secondary and post-secondary programs, including such items as: Number of clock hours of classroom instruction required for completion, prerequisites for admission, age requirements, etc. These and several other data elements can provide much needed management information. All of the information collected is keypunched and entered into the data bank for any future processing.

Colorado

The system used by Colorado is similar to Arizona's and also patterned after the one developed at the Ohio center. Some enrollment data are received directly from school districts on magnetic tape, the rest from forms filled out by students and teachers. The Ohio State design is extremely comprehensive, and although the States using it omit data elements they feel are unnecessary, they still receive much more detail about students and program operation than most States and the Federal Government receive. No other State contains in its system the information about programs that Colorado and Arizona have. Subsystems in Colorado include enrollment, follow-up, instructional personnel, and instructional programs. Parts of subsystems for finance and facilities are being developed.

Colorado is the only State that follows up its consumer and homemaking students on an individual basis. The data requested from former students include such items as the helpfulness of knowledge, skills, and learning experience in present occupation and/or family responsibilities.

Florida

Florida has the fifth largest vocational education enrollment in the Nation. Of the top five States (California, New York, Texas, Illinois, and Florida), this is the only one collecting individual student data. Enrollment, instructional personnel, and instructional program data are collected on the same form. In order to help instructors complete this form accurately, an attendance record book was developed by the Division of Vocational Education. Each teacher receives one at the beginning of the school year, and it must be returned to the Division of Vocational Education at the end of the school year. Some enrollment data are picked up directly from the school records on magnetic tape, and this is the practice the State seems to be moving to. One outstanding feature of the Florida system is its relatively low cost. Wherever possible, multiple use of equipment and technical personnel is achieved by combining vocational instruction data processing with processing of the schools' records.

In following up vocational education students, names and addresses of employers are obtained and questionnaires are sent to the employers as well as the former students working for them. Florida is one of very few States which do this.

Hawaii

Hawaii is the only State with a single school district that includes all elementary and secondary schools. The community colleges are under the administration of the University of Hawaii. The Division of Community Colleges at the University is also the State agency responsible for vocational education. Because of this arrangement two separate automated systems were developed, which Hawaii is now in the process of combining into a single reporting system.

All community college enrollment data are taken directly from the computer tapes or punched cards containing the community college records. All other enrollment data (secondary) were, until recently, collected through individual enrollment forms completed by the students. The State is in the process of trying to collect data directly from secondary school records also, and if successful, may become the first State to have its student characteristics information system completely automated.

Its subsystem for finance is the most advanced of any State in the Nation, with all expenditures recorded by departmental subject codes. It is thus possible in Hawaii to know exactly, by departments, the total costs and per student costs in any given year. Federally reported State expenditures are computed by multiplying total departmental expenditures by the pro rata figure that vocational education enrollment represents of the total enrollment in the department.

Iowa

Iowa has collected gross or class data only at the State level, but regional centers are being developed and some are in operation, collecting individual data directly on magnetic tape from the local schools. The principal reason for including Iowa in this list of States is the thoroughness of the data collected by the State Career Education Division. All information on finance, instructional personnel, and instructional programs is collected at the same time and on the same form as the enrollment data. A separate form is completed for each class, and all of the data are tied together by a unique instructor's number. In this way a direct audit trail is maintained.

Maryland

Maryland's system has several outstanding features, two of which are noted here. The enrollment subsystem is unique in its use of three different forms for secondary, post-secondary, and adult students. Because of this, information relating only to a particular level can be collected. Instructional personnel and instructional program data are also included on the enrollment form, and in each case are related to the secondary, post-secondary, and adult levels at which the courses are offered.

Maryland's subsystem for following up its secondary vocational education students is the only one of its kind in the Nation. All graduating secondary students are included, both academic and vocational. Each graduating student completes a portion of the follow-up form while still in school. After several months, the remainder of the form is mailed to the student to be completed. Information is gathered on these forms from all graduates, and particular information from those who are employed, and from those continuing their education at a higher level.

Minnesota

Undoubtedly the most elaborate follow-up system is the one developed by the University of Minnesota for that State's post-secondary vocational graduates. Since Minnesota does not collect individual student data for enrollment, a form was devised to collect biographical data on each student to be followed up. This form is returned to the University, which is responsible for conducting the follow-up.

One year after the student graduates a separate follow-up form is sent to him. The student is asked to give current information about his employment status, and the name, address, and telephone number of his employer. When the University receives the completed form, another is sent to the employer. He is asked the positon held by the former student and to rate the quality and quantity of his work, his job-related knowledge, punctuality, willingness to learn, etc. Various computer programs are used to match training programs with results and measure variables such as socio-economic factors, aptitude and interest, occupational background of parents, performance in school, etc. Both one-year and five-year follow-ups of each student are planned, with cumulative data to be used for longitudinal analysis.

Oklahoma

In any assessment of vocational education information systems, Oklahoma's ranks among those at the very top. It has been in operation longer than most, and is being copied by a number of other States as their model.

The total system includes the following subsystems:

Student Accounting System - Annual entry individual student records for all students (secondary, post-secondary, adult).

A. Enrollment - Information for the student enrollment subsystems originates on a class enrollment form filled out by the teacher. There are fifteen data elements. Enrollment forms are sent to the State Department of Vocational and Technical Education for processing.

B. Completion - Before completion of a class, the computerized completion forms are sent by the State Department of Vocational and Technical Education to the teacher for proper coding of each student.

C. Follow-up - On or before October 1 each year, computerized follow-up forms are sent by the State Department of Vocational and Technical Education to the teachers for proper coding of each student who has graduated or completed the training program. This year follow-up information ts being obtained on students in the 1973, 1971, and 1969 graduating classes. Parallel follow-up studies are completed each three years to validate results.

Instructional Personnel - Information for this subsystem originates from existing systems in the State Department of Education, the Oklahoma Teacher Retirement System, and Teacher Certification.

Instructional Programs - Curriculum is developed on performance objectives for vocational programs for about sixty percent of the teaching time. All materials are coordinated with the teachers, industry, supervisors, and teacher educators. Teaching materials have been developed to cover 67.5 percent of the secondary vocational and technical education. Special materials are developed for some adult classes.

Finance - The first limiting factor in management decisions is capital. Financial information is computerized to give an accurate account of various financial inputs and expenditures.

Facilities and Equipment - All facilities and equipment purchases with Federal and State (other than district) monies, and equipment obtained from U.S. Surplus and excess properties are computerized to make annual inventory checks with school districts in the State.

Evaluation - Oklahoma is committed to provide an on-site evaluation of twenty percent of the secondary programs annually. The evaluation results in a product index for each program with supervisours and administrators being aware of the value of the program to society.

Manpower Needs - Occupational Training Information system (OTIS) gives gross demand, gross supply, and net demand annually for the State and eleven sub-State planning regions for 218 occupations. One of the major uses of OTIS information is for program planning.

Pennsylvania

Quite possibly Pennsylvania has the most complete, most reliable, and most useful vocational education information system in the United States. It was developed by a private contractor working constantly with the State Division of Vocational Education. It is operational on the secondary, post-secondary and adult levels in all public institutions and all proprietary business and technical schools in the State. The ultimate goal of the system is to develop a manpower conversion model to provide information on all occupational training programs in the State including Federal programs such as MDTA, and WIN.

There are numerous subystems at the present time in Pennsylvania's total system, which is known as VEMIS (Vocational Education Management Information System). These include the five briefly described below, plus subsystems for instructional programs, finance, program approval application, special purpose surveys, Federal projects application and approval, administrative services, and school district/school basic data.

Student Enrollment - Data originate on an individual student optical scanning form. There are fifteen data elements for secondary students as well as a fall start-up roster and a year-end status form. The post-secondary and adult levels follow the same routine except for different data elements applicable to these levels of instruction. The year-end status form gathers data on program completers for follow-up, participation in coopetative education, aggregate days participation in the program (for calculating State reimbursements), as well as verification of all data gathered earlier in the year. The forms are sent by the school districts to the Department of Education for processing. Products generated by the subsystem include a directory of all students by county, by school, by curriculum, aggregate enrollment reports for all curriculums and special programs, year-end status reports, Federal report inputs field directories and trend reports.

Student Follow-up - Information originates from an individual optical scanning student follow-up form generated by the year-end status report. There are sixteen major sections which generate data on over 100 specific elements on program completers. Computer pre-coding on the form integrates the follow-up data with all other subsystems for comparative analysis of program data. The back of the form contains data elements on the completers' employers for the development of a Statewide Computer Assisted Placement Service (CAPS). Each school receives an individual school report on the status of program completers at the time of survey for local analysis and program improvement, if applicable. In addition, each school receives a printout of completers unemployed and looking for work at time of survey, to promote further school placement services. Several independent studies have been conducted to verify the validity and reliability of data since the subsystem was placed in operation in 1969. Subsystem products include graduate follow-up reports, dropout follow-up reports, and a five-year-out follow-up report initiated during the 1972-73 school year.

Instructional and Administrative Personnel - Information for the personnel subsystem is generated similarly to that for the student subsystem -- a fall start-up roster of all personnel retained in the system, a basic data form on all new personnel, and a year-end status form. The subsystem generates a directory of all personnel by county, school and curriculum, as well as a Personnel Profile Report on age groupings, race, sex, years of service, certification by field, salaries, etc., and a Year-End Status Report on terminators and personnel supporting activities. The forms have been converted from optical scanning to keypunch updating because of the lower volume compared to students. Other products include Federal report inputs and a personnel replacement forecast report.

Facilities and Equipment - Information originates on an optical scanning form for facilities in all high schools and Area Vocational Technical Schools approved to offer vocational programs. The form contains twenty-one data elements on facility identification, time and space utilization, availability and condition of equipment, and equipment and capital expenditures. Products of the subsystem include a facility description directory by county, school, and facility; a facility capacity utilization report through integration with the student subsystem; a facility profile report, and a facility exception report.

Enrollment Forecast - Information for an annual forecast report originates on a computer-generated optical scanning form listing all approved programs in operation. Schools provide data on proposed new and terminated programs, projected enrollments for the next year, and anticipated teacher, facility, and program changes. Products generated by the subsystem include a forecast directory by county, school, and curriculum; a forecast aggregate report by curriculum; a forecast capacity utilization report, and State Plan inputs.

Tennessee

The automated data system for vocational education in Tennessee has subsystems for enrollment, follow-up, and instructional personnel. Subsystems for finance and instructional programs are being developed. The enrollment subsystem includes some data elements not collected by most other States, such as: parent's area of occupation, plans for advanced vocational training, number of years living in the county, and whether the student plans to work in the county after finishing school.

Tennessee's instructional personnel subsystem seems to be one of the most complete. It includes years employed in education, years of experience in industry or business, and time distribution by periods per day. These data are used to determine major changes needed in program emphasis and in the allocation of resources for teacher education and in-service programs. Also, by use of the time distribution data, accountability can be specifically determined.

West Virginia

The automated data system for vocational education in West Virginia contains subsystems for enrollment, follow-up, and instructional personnel. Parts of subsystems have been developed for finance and instructional programs, with additional instructional program data also collected on the individual student enrollment forms. The latter includes number of weeks of the class, number of contact hours, and geographic and economic region data. The State has been divided into Economic Development Regions, and the students are asked to determine the region (from a map provided for that purpose) in which they reside. They are also asked to show whether they live in the SMSA, the central city, or a non-SMSA area. Thus, instead of having to estimate these numbers for Federal reporting, West Virginia can provide actual figures. The instructional personnel subsystem requires data elements quite similar to those collected in Tennessee.

FEDERAL REPORTING SYSTEMS

National reporting of vocational education. The U.S. Office of Education vocational education reporting system must be considered a manual system without documentation, and it contains only student data, financial data, and instructional personnel data. Many of the States are contributing excellent data to the system, and the information it reports is probably fairly reliable. On the other hand, no documentation is required and States may supply data which cannot be verified. Some of the information this system reports is undoubtedly quite reliable, as, for example, States' expenditures for vocational education. Some is completely unreliable, such as local school expenditures for vocational education. The rest lies somewhere in between. If not for problems of definition and communications, identified earlier in this chapter, the U.S.O.E. manual information system would be quite commendable within the limitations of that kind of system. As it is, it leaves much to be desired.

National reporting of manpower training. The U.S. Department of Labor, Manpower Administration, has information systems generating data on trainee characteristics, finance, and status of projects. All are partially automated, none completely so. There is also a follow-up system which is completely automated, but suffers the disadvantages of the manual procedure through which it receives its initial data. In addition to these the State Employment Service agencies generate data of their own on two of the manpower programs, MDTA Institutional and WIN, through the Employment Service Automated Reporting System (ESARS).

The Manpower Administration's trainee characteristics information system is contained in MARS, Manpower Automated Reporting System. Trainee data are entered on a standardized form (MA-101) by the local training facility in all programs except MDTA Institutional and WIN, which are done by the State agencies. The completed forms are sent to U.S. regional offices, where they are batched and sent on to Washington for keypunching and processing. For MDTA Institutional and WIN, data on trainees are entered on a form MA-102 when they leave these programs, and these follow the same route.

The MA-102 triggers a computer in Washington to send out a third form, MA-103, at three-month and six-month intervals after trainees have completed MDTA Institutional and WIN programs. The responses are mailed to local offices and sent on to the Manpower Administration in Washington for keypunching and processing. The data received are valid for only the percentage of response, usually about twenty-five percent.

Financial information is reported by an ancillary accounting system that operates separately from MARS. Data from either of these two systems cannot be used with the other except through a manual procedure. Thus, the only financial information available for any of the manpower programs is allocation of funds. Expenditure data cannot be related to trainees, but this will be possible under a new information system being implemented. For MDTA and WIN trainees, cost per trainee can be partially computed by individual State Employment Services through another system known as POSAPS, Plan Of Service Automated Planning System, but this is not done on a regular basis, and this information is not available nationally.

In addition to trainee characteristics, MARS also contains status of project data. These are monthly summaries of local training programs using gross data only.

MARS and the ancillary accounting system are being phased out, to be replaced by RAS, Regional Automation System. This is a fully automated system nearly two years in development which is being implemented in each U.S. regional office. Trainee characteristics, program, and financial data will be keypunched or fed on-line into regional centers from local projects using their own program and financial records. Gross data only on trainees will be entered. National reports and direct access to the data bases in regional terminals will be provided through the U.S. Department of Labor's central computer facility, DDPC, the Department Data Processing Center.

STATE AND FEDERAL INFORMATION NEEDS

Data needed in a good State system. Judgements and opinions on what State departments need to know will vary with experience. Based on observations of what appear to be useful systems in a number of States, a basic list of data elements, and procedures for collecting them would not be difficult to prepare. Inevitably, there will be disagreements with some of the details, but hopefully these will be of minor importance. The list presented here and the reasons for including these particular elements represent the best judgement of the Project Baseline Staff; working with each of the fifty State systems during the past two years.

The previous sections in this chapter deal with kinds of systems and procedures needed in a good State system. The data themselves have been discussed but not listed or identified in detail. This can best be done by treating each of the six major components separately: (1) Enrollment; (2) Follow-up; (3) Finance; (4) Instructional personnel; (5) Instructional programs; and (6) Facilities and equipment.

Enrollment

1. A unique number to locate each student file for statistical analyses.

2. Name, permanent address, and zip code. These are needed for following up students after they complete their programs, and a good follow-up system is impossible without them. Zip codes make it possible to analyse enrollments, completions, and follow-up in terms of the socio-economic characteristics of students' neighborhoods.

3. Age, sex, and grade level. The need for these are fairly obvious, with the possible exception of grade level. It indicates the approximate point reached at any given time in a course of study embracing two years or more. It also indicates the level of academic achievement reached, and therefore the approximate time students will be ready for the job market. Finally, in many States it enables tabulations and analyses to be made distinguishing between pre-vocational at the elementary level, pre-vocational and vocational education at the secondary level, and vocational or technical education at the post-secondary and adult levels.

4. Vocational courses and programs in which enrolled. These are essential--courses, to make current tabulations and analyses; programs, to identify areas of employment preparation and then the basis for follow-up evaluations as well as projected impact on the employment market. They are also essential for program assessments and evaluations at every level and for any geographic or institutional unit.

5. Race or ethnic identity. This is needed if special efforts are directed toward minority education. The results of those efforts--and the extent--cannot be measured without it. Some States have statutes forbidding this information to be gathered, in which case they must be estimated. The most reliable place to make an estimate is with individual student records in the classroom.

6. Handicapped. This is needed for the same reasons as race or ethnic identity. No State forbids gathering this information, so it can be collected at the source--the individual student.

7. Socio-economic disadvantaged. The same reasons. This information is much more difficult to determine, but the USOE has a set of criteria to use. Individual student data probably should be supplied by teachers or counselors.

8. End-of-class status. This is needed to know whether to keep the file open or to follow-up the next year, and in the case of follow-up to assist in data analysis.

Follow-up (periodic)

1. Principal current activity: employed, attending school, armed service or other temporary situation, unemployed looking for work, unemployed not looking for work. For partial assessment of previous vocational education and as the basis for further questions.

2. If employed, is it in the field for which trained or in a related field? For obvious reasons.

3. If employed outside of field, reason for change, e.g., only job available, personal choice. For better assessment of vocational education effectiveness.

4. If employed outside of field, is career goal still in that field? Same reason.

5. If not employed, for any reason, is career goal still in the field for which trained? Same reason.

6. Was vocational education program beneficial in ways other than immediate employment? Same reason.

7. Current salary bracket if employed. Same reason.

8. Job title, if employed. Same reason.

9. Employer name and address if employed. For further data to use in program assessment.

Finance

1. Expenditures for instructional salaries, identified by class or program. To determine instructional costs only by unit of instruction.

2. Expenditures for non-instructional salaries, pro-rated by class or programs. To make assessments of non-instructional personnel costs per unit of instruction.

3. Expenditures for supplies and equipment identified by class or program with estimated years of equipment use expected. Cost of equipment per unit of instruction can be determined only by taking into account the number of years it is expected to be used.

4. Expenditures for maintenance and overhead (utilities and service) pro-rated by class or program. Same reason.

5. Expenditures for capital improvement, identified or prorated by class or program, with estimated years of use expected. Same reason.

Instructional Personnel

1. A unique number to locate each person's file for statistical analyses.
2. Age and sex. For analyses of faculty characteristics by instructional unit.
3. OE code of classes being taught.
4. Class contact hours, per semester, for each class taught.
5. Number of years of previous teaching experience.
6. Highest academic degree or equivalent.
7. Number of years' employment experience outside of teaching related to teaching field.

Instructional Program

1. Type of class (lecture, laboratory, work experience, independent study, or combination). To make mode of instruction analyses by class and program.
2. Number of contact hours per semester. To determine program length.
3. Number of students enrolled. To determine class density.
4. Instructor (by unique number). To relate class and program data to instructional data for analyses.
5. Special purposes, if any. To relate class and program data to special educational purposes such as remedial, handicapped instruction, and disadvantaged instruction.

Facilities and Equipment

1. Square feet of classroom, laboratory, or shop for each class. To permit space assessments and analyses by instructional unit.
2. Equipment (machinery, audio-visual aids, etc.) identified by class or program. For assessments and analyses of mode of instruction.
3. Conditions code (excellent, good, fair, poor) in each class. Same reason.

Data needed at the Federal level. Not all of the data needed at the State level for program evaluation and policy or administrative decisions are essential at the Federal level. However, one feature of the data, not yet available in the U.S. Office of Education, is indispensable if its decisions are to be based on adequate knowledge. This is individual unit data, not gross data alone. Total numbers of students and total numbers of courses, for example, are of only limited value. Individual student files and individual course data by school make it possible for administrators to program analyses on a national scale which reveal a great deal of critical information.

Student names and addresses, except zip codes, and identifying student numbers are not necessary and should not be collected. The student Social Security number or matriculation number at the local and State level must be connected to a different unique number before transmitting files to the Federal level in order to protect the privacy of the students. A conversion code should be kept by the State data processing facility so that an audit trail can be maintained for follow-up analyses at the Federal level, tracing former students back through their respective State data systems.

The data actually needed at the Federal level would probably include most, if not all, of the elements listed above and under student enrollment, follow-up, and finance, since these are the suggested minimum elements only. Fewer data would be necessary on instructional programs, personnel, and physical facilities and equipment. Experience alone can determine this. It is not necessary to make advance judgements or decisions. Under a fully automated national information system, any data would be available at any level, at any time, if needed.

Table 1 - Vocational Student Data Systems

States	Fully Automated			Partially Automated Using Individual Data			Partially Automated Using Gross Data			Manual Systems With Documentation			Manual Systems Without Documentation		
	S	P-S	A	S	P-S	A	S	P-S	A	S	P-S	A	S	P-S	A
U.S. TOTAL	0	0	0	21	23	20	18	16	19	10	10	10	2	2	2
U.S.O.E.															X
Manpower Adm.									X						
Alabama							X	X	X						
Alaska										X	X	X			
Arizona				X	X	X									
Arkansas				X	X	X									
California							X	X	X						
Colorado				X	X	X									
Connecticut							X	X	X						
Delaware				X	X	X									
Dist. of C.															
Florida				X	X	X									
Georgia							X	X	X						
Hawaii				X	X	X									
Idaho										X	X	X			
Illinois							X	X	X						
Indiana							X	X	X						
Iowa							X	X	X						
Kansas				X	X	X									
Kentucky				X	X				X						
Louisiana										X	X	X			
Maine										X	X	X			
Maryland				X	X	X									
Massachusetts				X	X	X									
Michigan							X	X	X						
Minnesota					X		X		X						
Mississippi							X	X	X						
Missouri				X	X	X									
Montana													X	X	X
Nebraska										X	X	X			
Nevada										X	X	X			
New Hampshire							X	X	X						
New Jersey							X	X	X						
New Mexico				X	X	X									
New York							X	X	X						
N. Carolina				X	X	X									
N. Dakota										X	X	X			
Ohio							X	X	X						
Oklahoma				X	X	X									
Oregon				X	X	X									
Pennsylvania				X	X	X									
Rhode Island										X	X	X			
S. Carolina							X	X	X						
S. Dakota													X	X	X
Tennessee				X	X	X									
Texas							X	X	X						
Utah										X	X	X			
Vermont										X	X	X			
Virginia				X				X	X						
Washington					X		X		X						
W. Virginia				X	X	X									
Wisconsin					X	X	X								
Wyoming				X	X	X									
Puerto Rico				X	X	X									

Source: Data collected by Project Baseline staff.

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Table 2 - Vocational Followup Information Systems

States	Fully Automated			Partially Automated			Manual Systems With Documentation			Manual Systems Without Documentation		
	S	P-S	A	S	P-S	A	S	P-S	A	S	P-S	A
U.S. TOTAL	4	3	3	13	10	11	25	28	27	7	7	7
U.S.O.E.												X
Manpower Adm.						X						
Alabama							X	X	X			
Alaska										X	X	X
Arizona				X	X	X						
Arkansas				X	X	X						
California							X	X	X			
Colorado				X	X	X						
Connecticut							X	X	X			
Delaware								X	X			
Dist. of C.												
Florida				X	X	X						
Georgia							X	X	X			
Hawaii				X		X		X				
Idaho							X	X	X			
Illinois							X	X	X			
Indiana							X	X	X			
Iowa							X	X	X			
Kansas				X	X	X						
Kentucky				X	X	X						
Louisiana							X	X	X			
Maine							X	X	X			
Maryland[1]	X											
Massachusetts							X	X	X			
Michigan							X	X	X			
Minnesota							X	X	X			
Mississippi							X	X	X			
Missouri				X	X	X						
Montana										X	X	X
Nebraska							X	X	X			
Nevada							X	X	X			
New Hampshire										X	X	X
New Jersey[2]	X	X	X									
New Mexico[3]												
New York							X	X	X			
N. Carolina							X	X	X			
N. Dakota										X	X	X
Ohio							X	X	X			
Oklahoma	X	X	X									
Oregon				X				X	X			
Pennsylvania	X	X	X									
Rhode Island										X	X	X
S. Carolina							X	X	X			
S. Dakota										X	X	X
Tennessee				X	X	X						
Texas							X	X	X			
Utah				X	X	X						
Vermont							X	X	X			
Virginia				X				X	X			
Washington							X	X	X			
W. Virginia				X	X	X						
Wisconsin							X	X	X			
Wyoming												
Puerto Rico										X	X	X

[1] Information concerning post-secondary and adult procedures was not available at this time.

[2] This method is in the preparation stage of development. It will be put into operation in the near future.

[3] No system for followup. There is a plan in progress but not nearly operational.

Source: Data collected by Project Baseline staff.

Table 3 - Vocational Financial Reporting Systems

	Fully Automated			Partially Automated			Manual Systems With Documentation			Manual Systems Without Documentation		
States	S	P-S	A	S	P-S	A	S	P-S	A	S	P-S	A
U.S. Total	0	0	0	25	25	25	23	23	23	0	0	0
USOE												X
Manpower Adm.						X						
Alabama				X	X	X						
Alaska				X	X	X						
Arizona							X	X	X			
Arkansas				X	X	X						
California				X	X	X						
Colorado							X	X	X			
Connecticut				X	X	X						
Delaware							X	X	X			
Dist. of C.												
Florida				X	X	X						
Georgia				X	X	X						
Hawaii				X	X	X						
Idaho							X	X	X			
Illinois				X	X	X						
Indiana				X	X	X						
Iowa				X	X	X						
Kansas				X	X	X						
Kentucky				X	X	X						
Louisiana							X	X	X			
Maine							X	X	X			
Maryland							X	X	X			
Massachusetts				X	X	X						
Michigan							X	X	X			
Minnesota				X	X	X						
Mississippi				X	X	X						
Missouri							X	X	X			
Montana							X	X	X			
Nebraska							X	X	X			
Nevada							X	X	X			
New Hampshire							X	X	X			
New Jersey							X	X	X			
New Mexico							X	X	X			
New York												
N. Carolina				X	X	X						
N. Dakota				X	X	X						
Ohio				X	X	X						
Oklahoma				X	X	X						
Oregon				X	X	X						
Pennsylvania				X	X	X						
Rhode Island							X	X	X			
S. Carolina							X	X	X			
S. Dakota							X	X	X			
Tennessee				X	X	X						
Texas							X	X	X			
Utah							X	X	X			
Vermont							X	X	X			
Virginia							X	X	X			
Washington				X	X	X						
W. Virginia				X	X	X						
Wisconsin							X	X	X			
Wyoming												
Puerto Rico												

Source: Data collected by Project Baseline Staff.

Table 4 - Vocational Instructional Personnel, Instructional Programs, and Facilities and Equipment Information Systems

	Instructional Personnel			Instructional Programs			Facilities and Equipment		
	S	P-S	A	S	P-S	A	S	P-S	A
U.S. Total	33	33	33	30	30	30	22	21	21
USOE	X	X	X						
Manpower Adm.						X			
Alabama	X	X	X	X	X	X	X	X	X
Alaska									
Arizona	X	X	X	X	X	X	X	X	X
Arkansas	X	X	X	X	X	X	X	X	X
California									
Colorado	X	X	X	X	X	X	X	X	X
Connecticut									
Delaware									
Dist. of C.									
Florida	X	X	X	X	X	X	X	X	X
Georgia									
Hawaii	X	X	X	X	X	X	X		
Idaho									
Illinois	X	X	X	X	X	X			
Indiana	X	X	X	X	X	X	X	X	X
Iowa	X	X	X	X	X	X	X	X	X
Kansas	X	X	X	X	X	X	X	X	X
Kentucky	X	X	X	X	X	X			
Louisiana									
Maine	X	X	X	X	X	X			
Maryland	X	X	X	X	X	X			
Massachusetts							X	X	X
Michigan	X	X	X	X	X	X	X	X	X
Minnesota	X	X	X	X	X	X			
Mississippi	X	X	X						
Missouri	X	X	X	X	X	X	X	X	X
Montana									
Nebraska									
Nevada	X	X	X	X	X	X	X	X	X
New Hampshire	X	X	X						
New Jersey									
New Mexico	X	X	X						
New York									
N. Carolina	X	X	X	X	X	X			
N. Dakota				X	X	X	X	X	X
Ohio	X	X	X	X	X	X	X	X	X
Oklahoma	X	X	X	X	X	X	X	X	X
Oregon	X	X	X						
Pennsylvania	X	X	X	X	X	X	X	X	X
Rhode Island									
S. Carolina	X	X	X	X	X	X	X	X	X
S. Dakota									
Tennessee	X	X	X	X	X	X	X	X	X
Texas									
Utah	X	X	X	X	X	X			
Vermont	X	X	X	X	X	X	X	X	X
Virginia									
Washington	X	X	X	X	X	X			
W. Virginia	X	X	X	X	X	X	X	X	X
Wisconsin	X	X	X	X	X	X			
Wyoming	X	X	X	X	X	X	X	X	X
Puerto Rico									

Source: Data Collected by Project Baseline Staff.

Chapter III

SCOPE OF VOCATIONAL EDUCATION

Fiscal Year, 1972

Nearly five percent of the total population of the United States is enrolled in the nation's vocational education program. Starting from zero in 1917, vocational education has grown in fifty-five years to include nearly ten million people -- people who are preparing for work, people who are employed and desire to receive further training, people who need retraining in order to enter a new occupation, and people who are unemployed and are seeking work. The preamble to the Vocational Education Amendments of 1968 constituted a mandate from Congress to extend vocational education to every corner of the Nation, and to all the people therein.

This chapter reviews the scope of vocational education from several vantage points -- enrollment, financial basis, completions and placements, and a new occupational cluster taxonomy. Many tables provide insight to the nature of this vast system of vocational education as seen in the Fiscal year 1972.

ENROLLMENT

One of the parameters in the treatment of the scope of vocational education for Fiscal year 1972 is concerned with the number of people receiving vocational education; this is represented by the term enrollment, which refers to an unduplicated count of those in vocational education classes. Information is not available to indicate the amount of time devoted by each individual to vocational education. A person who spends one evening a week in the study of vocational education is counted in exactly the same manner as a person who devotes six hours a day, five days a week -- in each case the person represents one enrollment. Only in a most general way can any time consideration be inferred from enrollment data.

In all cases (except where otherwise specifically identified) enrollment represents the data submitted by the various States in response to the national vocational education Acts.

Total National Enrollment

The total enrollment in vocational education for the Fiscal year 1972 was 9,984,416.

Table 5 - Total Enrollment in Vocational Education Programs.
1971-72

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Total Post-Secondary Vocational Education Enrollment	Total Adult Vocational Education Enrollment
U.S. TOTAL	9,984,416	5,617,334	1,303,052	3,064,030
Alabama	157,746	93,350	19,853	44,543
Alaska	20,926	11,854	2,814	6,258
Arizona	102,806	50,279	38,318	14,209
Arkansas	110,224	61,692	6,240	42,292
California	1,221,509	580,211	329,635	311,663
Colorado	101,521	52,043	14,964	34,514
Connecticut	127,609	95,802	6,977	24,830
Delaware	37,323	32,049	1,249	4,025
Dist. of C.	10,813	5,706	1,653	3,454
Florida	511,750	260,082	75,173	176,495
Georgia	289,741	162,359	26,262	101,120
Hawaii	40,142	18,935	10,107	11,100
Idaho	33,146	22,377	3,255	7,514
Illinois	595,879	479,099	89,168	27,612
Indiana	154,556	101,506	7,529	45,521
Iowa	133,442	52,394	15,996	65,052
Kansas	98,819	42,813	9,283	46,723
Kentucky	164,869	99,169	12,844	52,856
Louisiana	176,312	126,184	19,375	30,753
Maine	29,840	16,779	2,065	10,996
Maryland	166,032	111,701	19,522	34,809
Massachusetts	163,799	121,684	13,019	29,096
Michigan	342,985	182,185	63,216	97,584
Minnesota	234,334	110,086	21,130	103,118
Mississippi	109,561	57,819	8,812	42,930
Missouri	162,625	112,167	14,282	36,176
Montana	32,267	19,416	4,125	8,726
Nebraska	68,796	36,052	7,180	25,564
Nevada	20,617	14,469	2,050	4,098
New Hampshire	25,310	17,921	2,011	5,378
New Jersey	310,186	200,439	16,974	92,773
New Mexico	52,338	40,038	5,099	7,201
New York	754,489	483,285	62,883	208,321
N. Carolina	430,626	174,984	46,421	209,221
N. Dakota	32,637	20,067	4,307	8,263
Ohio	412,007	195,833	20,186	195,988
Oklahoma	107,395	61,418	5,832	40,145
Oregon	123,936	64,161	22,444	37,331
Pennsylvania	327,458	189,073	29,844	108,541
Rhode Island	19,992	13,250	1,058	5,684
S. Carolina	101,615	75,880	7,463	18,272
S. Dakota	22,287	15,454	2,002	4,831
Tennessee	151,226	94,960	17,773	38,493
Texas	623,214	305,222	52,508	265,484
Utah	100,874	62,545	13,059	25,270
Vermont	16,903	12,142	212[1]	4,549
Virginia	269,799	127,640	18,807	123,352
Washington	250,802	125,767	58,701	66,334
W. Virginia	63,312	38,334	2,685	22,293
Wisconsin	253,495	103,278	48,990	101,227
Wyoming	17,694	15,089	1,617	988
Puerto Rico	96,832	50,292	16,080	30,460

[1] Includes only those programs administered by the State department.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 5 shows how the enrollment varied among the States. In addition the enrollment is shown for the three educational levels -- secondary, post-secondary, and adult. The total represents an all-time high and has more than doubled (actually increased by 145 percent) during the past decade.

Few, if any, substantive implications can be drawn from Table 5; the table merely presents the tabulated data for all Federally reported vocational education for all States. The table does suggest, however, that all States participate generously in the vocational education program.

Table 6 displays the total enrollment data in relation to total population. This table showing the number of enrollments per 1,000 population, makes it possible to compare one State with another, It is obvious that the States vary widely in the extent to which vocational education is made available to the total population. It is obvious also that a vast difference exists between the vocational education programs of Utah (95 enrollments per 1,000 population) and Rhode Island (21 per 1,000 population). Data available do not provide any clues to the causal factors that create these differences. It would seem appropriate that these differences among the States should be the target of extensive research -- not for the purpose of praising one State, or chastizing another, but to determine the nature of the social, economic, political, and other demographic factors involved, so that all States can be appraised of the influence of these factors on the development of vocational education.

Table 6 - Total Enrollment in Vocational Education per 1,000 Population, 1971-72

States	Total Population	Total Vocational Education Enrollment	Total Vocational Education Enrollment per 1,000 Population	Rank Order
U.S. TOTAL	205,926,479	9,984,416	48.49	
Alabama	3,444,165	157,746	45.80	29
Alaska	300,382	20,926	69.66	5
Arizona	1,773,420	102,806	57.97	12
Arkansas	1,923,295	110,224	57.31	14
California	19,953,134	1,221,509	61.22	9
Colorado	2,207,259	101,521	45.99	28
Connecticut	3,031,709	127,609	42.09	34
Delaware	548,104	37,323	68.09	6
Dist. of C.	756,510	10,813	14.29	52
Florida	6,789,443	511,750	75.37	3
Georgia	4,589,575	289,741	63.13	7
Hawaii	768,561[1]	40,142	52.23	19
Idaho	712,567	33,146	46.52	25
Illinois	11,113,976	595,879	53.62	16
Indiana	5,193,669	154,556	29.76	48
Iowa	2,824,376	133,442	47.25	24
Kansas	2,246,578	98,819	43.99	30
Kentucky	3,218,706	164,869	51.22	21
Louisiana	3,641,306	176,312	48.42	23
Maine	992,048	29,840	30.08	47
Maryland	3,922,399	166,032	42.33	32
Massachusetts	5,689,170	163,799	28.79	49
Michigan	8,875,083	342,985	38.65	39
Minnesota	3,804,971	234,334	61.59	8
Mississippi	2,216,912	109,561	49.42	22
Missouri	4,676,501	162,625	34.77	44
Montana	694,409	32,267	46.47	26
Nebraska	1,483,493	68,796	46.37	27
Nevada	488,738	20,617	42.18	33
New Hampshire	737,681	25,310	34.31	45
New Jersey	7,168,164	310,186	43.27	31
New Mexico	1,016,000	52,338	51.51	20
New York	18,236,967	754,489	41.37	36
N. Carolina	5,082,059	430,626	84.73	2
N. Dakota	617,761	32,637	52.83	18
Ohio	10,652,017	412,007	38.68	38
Oklahoma	2,559,229	107,395	41.96	35
Oregon	2,091,385	123,936	59.26	10
Pennsylvania	11,793,909	327,458	27.77	50
Rhode Island	946,725	19,992	21.12	51
S. Carolina	2,590,516	101,615	39.23	37
S. Dakota	665,507	22,287	33.49	46
Tennessee	3,923,687	151,226	38.54	40
Texas	11,196,730	623,214	55.66	15
Utah	1,059,273	100,874	95.23	1
Vermont	444,330	16,903	38.04	41
Virginia	4,648,494	269,799	58.04	11
Washington	3,409,169	250,802	73.57	4
W. Virginia	1,744,237	63,312	36.30	42
Wisconsin	4,417,731	253,495	57.38	13
Wyoming	332,416	17,694	53.23	17
Puerto Rico	2,712,033	96,832	35.70	43

[1] This figure has been updated by the State to 790,413, but the updated figure is not used in this table or the following population tables because all characteristics data are not available in updated form.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Secondary School Enrollment

The Vocational Education Act of 1963, and the Amendments of 1968, provided the opportunity to extend the vocational education program beyond its earlier boundaries of high school students and employed adults. Other target groups were included very specifically in the provisions of legislation -- the key word was "availability".

Table 7 - Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	9,984,416	5,617,334	56.26	
Alabama	157,746	93,350	59.18	26
Alaska	20,926	11,854	56.65	29
Arizona	102,806	50,279	48.91	43
Arkansas	110,224	61,692	55.97	32
California	1,221,509	580,211	47.50	45
Colorado	101,521	52,043	51.26	39
Connecticut	127,609	95,802	75.07	5
Delaware	37,323	32,049	85.87	1
Dist. of C.	10,813	5,706	52.77	34
Florida	511,750	260,082	50.82	40
Georgia	289,741	162,359	56.04	31
Hawaii	40,142	18,935	47.17	47
Idaho	33,146	22,377	67.51	14
Illinois	595,879	479,099	80.40	3
Indiana	154,556	101,506	65.68	17
Iowa	133,442	52,394	39.26	52
Kansas	98,819	42,813	43.32	49
Kentucky	164,869	99,169	60.15	25
Louisiana	176,312	126,184	71.57	9
Maine	29,840	16,779	56.23	30
Maryland	166,032	111,701	67.28	15
Massachusetts	163,799	121,684	74.29	7
Michigan	342,985	182,185	53.12	33
Minnesota	234,334	110,086	46.98	48
Mississippi	109,561	57,819	52.77	35
Missouri	162,625	112,167	68.97	13
Montana	32,267	19,416	60.17	24
Nebraska	68,796	36,052	52.40	36
Nevada	20,617	14,469	70.18	11
New Hampshire	25,310	17,921	70.81	10
New Jersey	310,186	200,439	64.62	18
New Mexico	52,338	40,038	76.50	4
New York	754,489	483,285	64.05	19
N. Carolina	430,626	174,984	40.63	51
N. Dakota	32,637	20,067	61.49	22
Ohio	412,007	195,833	47.53	44
Oklahoma	107,395	61,418	57.19	28
Oregon	123,936	64,161	51.77	38
Pennsylvania	327,458	189,073	57.74	27
Rhode Island	19,992	13,250	66.28	16
S. Carolina	101,615	75,880	74.67	6
S. Dakota	22,287	15,454	69.34	12
Tennessee	151,226	94,960	62.79	20
Texas	623,214	305,222	48.98	42
Utah	100,874	62,545	62.00	21
Vermont	16,903	12,142	71.83	8
Virginia	269,799	127,640	47.31	46
Washington	250,802	125,767	50.15	41
W. Virginia	63,312	38,334	60.55	23
Wisconsin	253,495	103,278	40.74	50
Wyoming	17,694	15,089	85.28	2
Puerto Rico	96,832	50,292	51.94	37

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Total secondary school enrollment. Table 7 provides an index of the extent to which the States have developed their programs of vocational education in the secondary schools of the Nation. On a national basis fifty-six percent of the total vocational education enrollment is found in the high schools. Variation among the States ranges from a high of eighty-six percent (Delaware) to a low of thirty-nine percent (Iowa).

It is difficult to make value judgments on these data until supplementary information can be provided showing the general development of vocational education in the various educational levels in each State. For any particular State a high percentage of enrollment in vocational education in secondary schools does not mean that a majority of the high school students of that State have the opportunity to enroll in vocational education. In a sense Table 7 represents a jumping-off-point for further study of secondary school vocational education.

Table 8 presents a comparison of secondary vocational education enrollment and the general population age group 15-19 years.

Granted that the population age range does not exactly fit the secondary school age group, it is true that the vast majority of high school students is included within this age range. Again the States vary widely. Table 8 shows that the enrollment in secondary vocational education for Delaware represents sixty-two percent of the age group 15-19 years for Delaware, and that the secondary school enrollment in vocational education in the District of Columbia represents 8.7 percent of the 15-19 year age group. Although caution must be used in making interpretations without additional information, it does seem probable that most States could increase substantially their vocational education enrollment opportunities for the age group 15-19 years. This age group is generally associated with high unemployment rates.

Table 8 - Secondary Vocational Education Enrollment as a Percent of Total Population 15-19 Years of Age, 1971-72

States	Total Population 15-19 Years of Age	Total Secondary Vocational Education Enrollment	Total Secondary Vocational Education Enrollment as a Percent of Total Population 15-19	Rank Order
U.S. TOTAL	19,072,404	5,567,042	29.19	
Alabama	341,751	93,350	27.32	29
Alaska	26,768	11,854	44.28	6
Arizona	173,424	50,279	28.99	24
Arkansas	182,192	61,692	33.86	12
California	1,817,379	580,211	31.93	16
Colorado	217,451	52,043	23.93	38
Connecticut	264,053	95,802	36.28	10
Delaware	51,332	32,049	62.43	1
Dist. of C.	65,609	5,706	8.70	51
Florida	576,776	260,082	45.09	5
Georgia	442,571	162,359	36.69	9
Hawaii	71,843	18,935	26.36	32
Idaho	74,065	22,377	30.21	22
Illinois	1,011,062	479,099	47.39	3
Indiana	502,240	101,506	20.21	44
Iowa	273,475	52,394	19.16	47
Kansas	217,212	42,813	19.71	45
Kentucky	318,756	99,169	31.11	19
Louisiana	375,958	126,184	33.56	14
Maine	93,361	16,779	17.97	48
Maryland	356,139	111,701	31.36	18
Massachusetts	514,556	121,684	23.65	40
Michigan	872,624	182,185	20.88	43
Minnesota	373,405	110,086	29.48	23
Mississippi	232,971	57,819	24.82	37
Missouri	429,653	112,167	26.11	33
Montana	70,346	19,416	27.60	27
Nebraska	143,175	36,052	25.18	35
Nevada	40,185	14,469	36.01	11
New Hampshire	67,264	17,921	26.64	31
New Jersey	611,831	200,439	32.76	15
New Mexico	105,164	40,038	38.07	8
New York	1,563,179	483,285	30.92	21
N. Carolina	519,514	174,984	33.68	13
N. Dakota	64,769	20,067	30.98	20
Ohio	1,012,221	195,833	19.35	46
Oklahoma	241,535	61,418	25.43	34
Oregon	203,362	64,161	31.55	17
Pennsylvania	1,075,430	189,073	17.58	49
Rhode Island	85,680	13,250	15.46	50
S. Carolina	280,881	75,880	27.01	30
S. Dakota	69,989	15,454	22.08	42
Tennessee	377,954	94,960	25.12	36
Texas	1,092,752	305,222	27.93	26
Utah	116,607	62,545	53.64	2
Vermont	44,397	12,142	27.35	28
Virginia	440,872	127,640	28.95	25
Washington	329,903	125,767	38.12	7
W. Virginia	172,386	38,334	22.24	41
Wisconsin	433,153	103,278	23.84	39
Wyoming	33,229	15,089	45.41	4
Puerto Rico	NA			NA

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

What percentage of the students in secondary schools is enrolled in secondary school vocational education? The answer to this question is shown in Table 9. The range of enrollment among the States varies from a high of seventy-nine percent (Delaware) to a low of twenty-one percent (District of Columbia); the national average is 40.59 percent. The data in Table 9 are particularly important because they relate to one of the critical problems in education and employment. For example, it is well known that large numbers of students leaving secondary school do not continue their education, and are unprepared to enter the world of work because they lack employment skills.

Table 9 - Secondary Vocational Education Enrollment as a Percent of Total Secondary School Enrollment, 1971-72

States	Total Secondary School Enrollment	Total Secondary Vocational Education Enrollment	Total Secondary Vocational Education Enrollment as a Percent of Total Secondary School Enrollment	Rank Order
U.S. TOTAL	13,840,890	5,617,334	40.59	
Alabama	135,886	93,350	68.70	3
Alaska	20,869	11,854	56.80	5
Arizona	143,452	50,279	35.05	35
Arkansas	132,742	61,692	46.48	13
California	1,316,402	580,211	44.08	18
Colorado	157,782	52,043	32.98	38
Connecticut	188,121	95,802	50.93	9
Delaware	40,322	32,049	79.48	1
Dist. of C.	25,923	5,706	21.19	52
Florida	464,302	260,082	56.02	6
Georgia	323,286	162,359	50.22	11
Hawaii	52,322	18,935	36.19	32
Idaho	60,817	22,377	36.79	29
Illinois	695,259	479,099	68.91	2
Indiana	364,039	101,506	27.88	44
Iowa	204,269	52,394	25.65	48
Kansas	162,516	42,813	26.34	47
Kentucky	216,804	99,169	45.74	16
Louisiana	239,171	126,184	52.76	8
Maine	71,356	16,779	23.51	51
Maryland	288,978	111,701	38.65	25
Massachusetts	356,602	121,684	34.12	36
Michigan	679,836	182,185	26.80	45
Minnesota	285,851	110,086	38.51	26
Mississippi	146,464	57,819	39.48	24
Missouri	308,541	112,167	36.35	31
Montana	54,213	19,416	35.81	33
Nebraska	126,543	36,052	28.49	43
Nevada	35,661	14,469	40.57	21
New Hampshire	48,937	17,921	36.62	30
New Jersey	431,554	200,439	46.45	14
New Mexico	86,250	40,038	46.42	15
New York	1,069,916	483,285	45.17	17
N. Carolina	364,536	174,984	48.00	12
N. Dakota	50,576	20,067	39.68	23
Ohio	740,953	195,833	26.43	46
Oklahoma	190,751	61,418	32.20	40
Oregon	160,325	64,161	40.02	22
Pennsylvania	748,452	189,073	25.26	50
Rhode Island	52,273	13,250	25.35	49
S. Carolina	184,081	75,880	41.22	20
S. Dakota	51,865	15,454	29.80	42
Tennessee	266,434	94,960	35.64	34
Texas	803,959	305,222	37.96	27
Utah	94,470	62,545	66.21	4
Vermont	32,799	12,142	37.02	28
Virginia	291,360	127,640	43.81	19
Washington	248,136	125,767	50.68	10
W. Virginia	121,439	38,334	31.57	41
Wisconsin	322,671	103,278	32.01	39
Wyoming	27,674	15,089	54.52	7
Puerto Rico	152,152	50,292	33.05	37

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Total School Enrollment gathered by Project Baseline

Number of schools offering vocational education. The Vocational Education Act of 1963 and the Amendments of 1968 unquestionably caused an increase in the number of secondary schools that offer vocational education programs. However, at the time of the Project Baseline survey for Fiscal year 1972 only eleven States and the District of Columbia could supply substantive data concerning the number of schools offering vocational education programs. On the basis of the eleven States and the District of Columbia (Table 10), the range was from forty-six percent (North Dakota) to 100 percent (District of Columbia). Such figures may be misleading. It has been noted previously, for example, that in the District of Columbia, which offers vocational education in all secondary schools, only twenty-one percent of the students are enrolled in vocational education programs.

Table 10 - Number of Secondary Schools Offering Vocational Education as a Percent of Total Number of Secondary Schools in Eleven States and the District of Columbia, 1971-72

States	Secondary Schools	Secondary Schools With Vocational Education	Percent
TOTAL	4,154	3,214	77.37
Arizona	147	112	76.19
California	1,231	800	64.99
Dist. of C.	5	5	100.00
Indiana	398	334	83.92
Mississippi	391	380	97.19
Nevada	74	54	72.97
N. Dakota	272	125	45.96
Oklahoma	484	435	89.88
Rhode Island	39	26	66.67
S. Carolina	344	298	86.63
Tennessee	346	322	93.06
Wisconsin	423	323	76.36

Source: Data collected from the various States.

Enrollment by grade level. Table 11 presents data showing the grade enrollment in vocational education in the secondary schools of six States. Again the States exhibit wide variation. The national trend is encouraging, as it indicates a definite progression from grade nine (27.4 percent enrollment) to grade twelve (56.4 percent enrollment). This is due in part, of course, to the numerous States which have two- or three-year vocational education programs that begin in grades ten or eleven.

Table 11 – Total Vocational Education in Grades 9-12 as a Percent of Total Public School Enrollment in Grades 9-12 as Reported by Six States, 1971-72

	NINTH GRADE			TENTH GRADE			ELEVENTH GRADE			TWELFTH GRADE		
States	Total Enroll.	Voc. Ed. Enroll.	Percent	Total Enroll.	Voc. Ed. Enroll.	Percent	Total Enroll.	Voc. Ed. Enroll.	Percent	Total Enroll.	Voc. Ed. Enroll.	Percent
TOTAL	544,837	149,452	27.43	510,790	140,533	27.51	439,393	204,261	46.49	398,338	224,771	56.43
Arizona	41,018	8,947	21.81	37,714	7,799	20.68	33,261	15,188	45.66	29,856	17,507	58.64
Colorado	43,668	5,435	12.45	40,542	6,620	16.33	36,431	12,635	34.68	32,456	15,625	48[illegible]
Georgia	98,765	36,285	36.74	88,976	35,039	39.38	72,384	43,419	59.98	63,161	47,616	75.39
N. Carolina	105,736	59,199	55.99	99,065	35,643	35.98	83,798	43,986	52.49	74,037	57,359	77.47
Pennsylvania	199,527	15,158	7.60	195,062	34,514	17.69	172,226	69,356	40.27	161,513	70,044	43.37
S. Carolina	56,123	24,428	43.53	49,350	20,918	42.39	41,293	19,677	47.65	37,315	16,620	44.54

Source: Data collected from various States.

Cooperative vocational education. Cooperative vocational education which correlates school instruction and on-the-job training has been recognized by two previous national studies of vocational education (1962 and 1967) as an area of vocational education worthy of extensive development. In addition cooperative education has the support of management, labor, business, and industry; industry-education councils, particularly in California, have been exceedingly encouraging about continued development of cooperative education.

The values of cooperative vocational education are reasonably well known and documented so it is not necessary to repeat here the elements of quality. The programs do require adequate supervision and generally require minimum equipment and facility needs.

Table 12 shows the distribution of cooperative vocational education in the secondary schools as a function of total secondary vocational education enrollment. Alaska has the highest percentage of enrollment (48.88 percent) and California the lowest (1.67 percent).

Table 12 - Secondary Cooperative Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1971-72

States	Total Secondary Vocational Education Enrollment (Excluding Consumer & Homemaking)	Total Secondary Cooperative Vocational Education Enrollment (Excluding Consumer & Homemaking)	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	3,767,588	312,072	8.28	
Alabama	56,185	9,704	17.27	15
Alaska	9,706	4,744	48.88	1
Arizona	29,432	6,418	21.81	8
Arkansas	30,716	3,171	10.32	23
California	424,988	7,113	1.67	44
Colorado	38,213	887	2.32	43
Connecticut	69,948	5,978	8.55	28
Delaware	25,951	2,392	9.22	25
Dist. of C.	4,654	518	11.13	21
Florida	152,043	30,201	19.86	13
Georgia	107,599	NA	NA	NA
Hawaii	11,704	401	3.43	41
Idaho	11,609	1,366	11.77	19
Illinois	451,746	NA	NA	NA
Indiana	51,048	10,345	20.27	11
Iowa	19,119	NA	NA	NA
Kansas	23,807	2,680	11.26	20
Kentucky	62,719	NA	NA	NA
Louisiana	72,854	6,056	8.31	30
Maine	14,061	964	6.86	35
Maryland	77,727	5,452	7.01	34
Massachusetts	108,468	2,980	2.75	42
Michigan	113,404	28,807	25.40	3
Minnesota	45,418	10,082	22.20	7
Mississippi	28,627	2,474	8.64	27
Missouri	52,089	NA	NA	NA
Montana	13,054	973	7.45	31
Nebraska	20,400	4,075	19.98	12
Nevada	15,918	1,443	9.07	26
New Hampshire	10,204	500	4.90	38
New Jersey	132,837	7,391	5.56	37
New Mexico	23,012	3,263	14.18	17
New York	349,982	16,718	4.78	39
N. Carolina	115,948	22,025	19.00	14
N. Dakota	10,976	2,591	23.61	5
Ohio	121,478	NA	NA	NA
Oklahoma	43,067	9,151	21.25	9
Oregon	35,043	5,438	15.52	16
Pennsylvania	144,650	10,270	7.10	33
Rhode Island	5,661	1,293	22.84	6
S. Carolina	47,811	4,452	9.31	24
S. Dakota	6,977	1,703	24.41	4
Tennessee	48,701	3,592	7.38	32
Texas	133,650	43,832	32.80	2
Utah	58,685	NA	NA	NA
Vermont	7,147	794	11.11	22
Virginia	91,978	19,308	20.99	10
Washington	74,822	5,108	6.83	36
W. Virginia	26,603	1,163	4.37	40
Wisconsin	91,662	NA	NA	NA
Wyoming	10,907	1,491	13.67	18
Puerto Rico	32,580	2,765	8.49	29

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 13 compares the number of secondary schools in twenty States that offer cooperative vocational education with the total number of secondary schools in those States that offer vocational education. The variation among the States -- cooperative vocational education was found in more than ninety percent of the secondary schools offering vocational education in Oregon, and not quite twelve percent of such schools in Idaho and Utah.

Table 13 - Number of Secondary Schools Offering Cooperative Vocational Education Programs as a Percent of Total Secondary Schools Offering Vocational Education in Twenty States, 1971-72

States	Total Number of Secondary Schools Offering Vocational Education	Total Number of Secondary Schools Offering Cooperative Vocational Education	Percent of Secondary Schools Offering Vocational Education
TOTAL	4,096	1,727	42.16
Georgia	342	241	70.47
Idaho	117	14	11.97
Kansas	231	100	43.29
Maine	113	37	32.74
Maryland	195	87	44.62
Mississippi	380	71	18.68
Missouri	346	134	38.73
Nebraska	191	116	60.73
Nevada	44	15	34.09
New Hampshire	44	28	63.64
N. Dakota	125	46	36.80
Oregon	180	163	90.56
Pennsylvania	707	331	46.82
Rhode Island	26	20	76.92
S. Carolina	298	125	41.95
S. Dakota	112	18	16.07
Utah	84	10	11.90
Vermont	55	39	70.91
W. Virginia	183	30	16.39
Wisconsin	323	102	31.58

Source: Data collected from various States.

Work study programs. The concept of work study programs developed in vocational education during the 1960s. The idea was that if some young people were provided an opportunity to earn money while in school, they could stay in school in a vocational education program. This process would tend to minimize the extent to which students in secondary schools would leave school in order to enter the labor market and would provide such students an opportunity to enter the labor market with saleable skills. Table 14 indicates that 24,382 students took advantage of this opportunity in secondary schools during Fiscal year 1972. Although the percentage of enrollment appears to be low, the need for such programs appears to persist.

Table 14 - Secondary Work Study Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1971-72

States	Total Secondary Vocational Education Enrollment	Total Secondary Work Study Vocational Education Enrollment	Percent of Total Secondary Vocational Education Enrollment	Rank Order
U.S. TOTAL	5,617,334	24,382	.43	
Alabama	93,350	664	.71	10
Alaska	11,854	60	.51	26
Arizona	50,279	339	.67	13
Arkansas	61,692	358	.58	20
California	580,211	1,272	.22	43
Colorado	52,043	458	.88	6
Connecticut	95,802	388	.41	32
Delaware	32,049	203	.63	16
Dist. of C.	5,706	125	2.19	1
Florida	260,082	1,255	.48	27
Georgia	162,359	1,150	.71	11
Hawaii	18,935	413	2.18	2
Idaho	22,377	70	.31	36
Illinois	479,099	640	.13	48
Indiana	101,506	301	.30	40
Iowa	52,394	139	.27	41
Kansas	42,813	186	.43	30
Kentucky	99,169	781	.79	7
Louisiana	126,184	238	.19	45
Maine	16,779	0	0.00	49
Maryland	111,701	350	.31	37
Massachusetts	121,684	1,553	1.28	3
Michigan	182,185	1,351	.74	8
Minnesota	110,086	0	0.00	50
Mississippi	57,819	307	.53	24
Missouri	112,167	664	.59	19
Montana	19,416	79	.41	33
Nebraska	36,052	146	.40	34
Nevada	14,469	75	.52	25
New Hampshire	17,921	100	.56	22
New Jersey	200,439	2,000	1.00	5
New Mexico	40,038	221	.55	23
New York	483,285	1,500	.31	38
N. Carolina	174,984	377	.22	44
N. Dakota	20,067	85	.42	31
Ohio	195,833	948	.48	28
Oklahoma	61,418	432	.70	12
Oregon	64,161	164	.26	42
Pennsylvania	189,073	1,232	.65	14
Rhode Island	13,250	58	.44	29
S. Carolina	75,880	483	.64	15
S. Dakota	15,454	98	.63	17
Tennessee	94,960	688	.72	9
Texas	305,222	947	.31	39
Utah	62,545	109	.17	46
Vermont	12,142	126	1.04	4
Virginia	127,640	771	.60	18
Washington	125,767	209	.17	47
W. Virginia	38,334	221	.58	21
Wisconsin	103,278	0	0.00	51
Wyoming	15,089	48	.32	35
Puerto Rico	50,292	0	0.00	52

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 15 shows the number of schools participating in the work study program in the seventeen States that had such data. Of the 3,555 secondary schools offering vocational education, 486 (13.7 percent) provided work study opportunities. Strangely, some States have not offered work study programs to their students or, if they did, failed to report it.

Table 15 - Number of Secondary Schools Offering Work Study as a Percent of Total Number of Secondary Schools Offering Vocational Education in Seventeen States for 1971-72

States	Total Number of Secondary Schools Offering Vocational Education	Total Number of Secondary Schools Offering Work Study	Number of Secondary Schools Offering Work Study as a Percent of Total Number of Secondary Schools Offering Vocational Education
TOTAL	3,555	486	13.67
Arizona	112	51	45.67
Georgia	342	55	16.08
Louisiana	465	10	2.15
Massachusetts	232	20	8.62
Mississippi	380	60	15.79
Missouri	346	72	20.81
Montana	125	19	15.20
Nebraska	191	12	6.28
New Hampshire	44	8	18.18
N. Dakota	125	34	27.20
Oklahoma	435	51	11.72
Rhode Island	26	5	19.23
S. Carolina	298	31	10.40
S. Dakota	112	4	3.57
Utah	84	14	16.67
Vermont	55	11	20.00
W. Virginia	183	29	15.85

Source: Data collected from various States.

Programs for the disadvantaged. Over six percent of the total vocational education programs were identified in Fiscal year 1972 as organized specifically as programs for the disadvantaged. The data on Table 16 show how these programs were distributed among the twenty-seven States that reported such programs. It is important to note that Table 16 reports organized vocational education programs and not the number of students involved in such programs.

Despite the desirability of providing in a specific way for the particular needs of disadvantaged students, it must be noted that many disadvantaged students are served by the regular programs of vocational education and do not need to be served by special programs. A decade ago the special needs of such students were all but ignored in vocational education.

Table 16 - Number of Secondary Vocational Education Programs Solely for Disadvantaged as a Percent of Total Secondary Vocational Education Programs in Twenty-Seven States, 1971-72

States	Total Secondary Vocational Education Programs	Total Secondary Vocational Education Programs Solely for Disadvantaged	Percent of Total Secondary Vocational Education Programs Solely for Disadvantaged
TOTAL	21,144	1,388	6.56
Alaska	190	47	24.74
Arizona	1,296	9	.69
Arkansas	643	161	25.04
Connecticut	667	117	17.54
Delaware	64	6	9.38
Georgia	90	35	38.89
Idaho	348	5	1.44
Iowa	2,346	23	.98
Kansas	587	6	1.02
Maine	322	36	11.18
Maryland	1,659	129	7.78
Minnesota	1,320	146	11.06
Montana	204	35	17.16
Nebraska	648	58	8.95
Nevada	371	56	15.09
New Hampshire	241	26	10.79
N. Carolina	2,666	107	4.01
N. Dakota	323	24	7.43
Oklahoma	1,339	68	5.08
Rhode Island	122	29	23.77
S. Carolina	1,702	78	4.58
S. Dakota	256	17	6.64
Tennessee	976	74	7.58
Vermont	276	6	2.17
W. Virginia	650	55	8.46
Wisconsin	1,329	24	1.81
Wyoming	509	11	2.16

Source: Data collected from various States.

Programs for the handicapped. Like the programs for the disadvantaged, programs for the handicapped are products of the new view of vocational education during the 1960s. Prior to that, most of the vocational education for the handicapped was provided for by special legislation, which still accounts for the major portion of vocational education for the handicapped. Nevertheless, the new provisions in the vocational education Acts enabled twenty-five States to provide a total of 632 special programs for students in secondary schools in Fiscal year 1972. Table 17 shows these data.

Table 17 - Number of Secondary Vocational Education Programs Solely for Handicapped as a Percent of Total Secondary Vocational Education Programs in Twenty-Five States, 1971-72

States	Total Secondary Vocational Education Programs	Total Secondary Vocational Education Programs Solely for Handicapped	Percent of Total Secondary Vocational Education Programs Solely for Handicapped
TOTAL	20,678	632	3.06
Arizona	1,296	10	.77
Arkansas	643	45	7.00
Connecticut	667	46	6.90
Delaware	64	12	18.75
Georgia	90	35	38.89
Idaho	348	4	1.15
Iowa	2,346	37	1.58
Kansas	587	1	.17
Maine	322	28	8.70
Maryland	1,659	75	4.52
Minnesota	1,320	53	4.02
Montana	204	17	8.33
Nebraska	648	44	6.79
Nevada	371	3	.81
New Hampshire	241	7	2.90
N. Carolina	2,666	71	2.66
N. Dakota	323	10	3.10
Oklahoma	1,339	25	1.87
Rhode Island	122	9	7.38
S. Carolina	1,702	37	2.17
S. Dakota	256	3	1.17
Tennessee	976	14	1.43
W. Virginia	650	10	1.54
Wisconsin	1,329	25	1.88
Wyoming	509	11	2.16

Source: Data collected from various States.

Other secondary school enrollment data. Table 18 is a composite of data on secondary school enrollment, previously reported, and other occupationally related programs of education, gleaned from a variety of sources.

Table 18 - Enrollment in Other Occupationally Related Programs as a Percent of Total Secondary School Enrollment in Fifteen States, 1971-72

				Federally Rep't Secondary Vocational Education				Other Secondary Occupational Related Programs									
States	Tot. Sec. Enroll.	Sec. Stds. in Fed. Rep't Voc. Education	Per-cent	Enroll. in Cons. & Hmkg.	Per-cent	Enroll. Minus C & H	Per-cent	Indus. Arts Enroll.	Per-cent	Gen. Bus. Enroll.	Per-cent	Gen. Agric. Enroll.	Per-cent	Tot. Fed. Rep't Voc. Ed. & Other Occup. Related Pgms. Minus Cons. & Hmkg.	Per-cent	Tot. Fed. Rep't Voc. Ed. & Other Occup. Related Pgms. Includ. Cons. & Hmkg.	Per-cent
TOTAL	3,324,651	1,316,851	39.6	549,238	16.5	774,646	23.3	566,046	17.0	490,583	14.8	10,051	.3	1,841,326	55.4	2,390,564	71.9
Georgia	323,286	162,359	50.2	54,760	16.9	107,599	33.3	47,162	14.6	56,726	17.6	0	0.0	211,487	65.4	266,247	82.4
Hawaii	52,322	18,935	36.2	7,231	13.8	11,704	22.4	14,030	26.8	8,675	16.6	468	.9	34,877	66.7	42,108	80.5
Idaho	60,817	22,377	36.8	10,768	17.7	11,609	19.1	11,025	18.1	2,250	3.7	0	0.0	24,884	40.9	35,652	58.6
Indiana	364,039	101,506	27.9	50,458	13.9	51,048	14.0	89,220	24.5	75,697	20.8	6,322	1.7	222,287	61.1	272,745	74.9
Kentucky	216,804	99,169	45.7	38,075[1]	17.6	62,719[1]	28.9	43,276	20.0	42,000	19.4	200	.1	148,195	68.4	186,270	85.9
Mississippi	146,464	57,819	39.5	29,192	19.9	28,627	19.5	12,142	8.3	57,011	38.9	250	.2	98,030	66.9	127,222	86.9
Nebraska	126,543	36,052	28.5	15,652	12.4	20,400	16.1	25,000	19.8	3,807	3.0	0	0.0	49,207	38.9	64,859	51.3
N. Carolina	364,536	174,984	48.0	59,036	16.2	115,948	31.8	27,000	7.4	129,503	35.5	0	0.0	272,451	74.7	331,487	90.9
N. Dakota	50,576	20,067	39.7	9,091	18.0	10,976	21.7	10,697	21.2	3,264	6.5	0	0.0	24,937	49.3	34,028	67.3
Oklahoma	190,751	61,418	32.2	23,759[1]	12.5	43,067[1]	22.6	25,031	13.1	33,000	17.3	0	0.0	101,098	53.0	124,857	65.5
S. Carolina	184,081	75,880	41.2	28,069	15.2	47,811	26.0	12,273	6.7	21,827	11.9	0	0.0	81,911	44.5	109,980	59.7
Texas	803,959	305,222	38.0	171,572	21.3	133,650	16.6	186,345	23.2	20,799	2.6	411	.1	341,205	42.4	512,777	63.8
Virginia	291,360	127,640	43.8	35,662	12.2	91,978	31.6	44,398	15.2	22,438	7.7	0	0.0	158,814	54.5	194,476	66.7
W. Virginia	121,439	38,334	31.6	11,731	9.7	26,603	21.9	15,835	13.0	10,986	9.0	0	0.0	53,424	44.0	65,155	53.7
Wyoming	27,674	15,089	54.5	4,182	15.1	10,907	39.4	2,612	9.4	2,600	9.4	2,400	8.7	18,519	66.9	22,701	82.0

[1] Duplicated figures.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Data collected by Project Baseline staff.

Post-Secondary School Enrollment

The legislation of the 1960s provided the real opportunity to expand vocational education beyond the secondary school. Some elements of earlier legislation had "broken the ice" in providing opportunity for the establishment of Area Schools, but the real push toward post-secondary vocational education came with the general expansion of vocational education services and programs.

The phrase "post-secondary" has provided some problems in interpretation. Without details, suffice it to say that the States vary widely in the way the term is used in reporting post-secondary enrollment. One interpretation may cause certain special school program enrollments (not regular high school) to be reported as post-secondary; in some cases reporting may affect the adult enrollment. Fortunately, however, the integrity of the concept of "unduplicated count" appears to be honored.

Post-secondary education has grown rapidly during the past few years and has been regarded as a highly desirable level for a majority of the technical education programs. Post-secondary education provides another opportunity for students to develop essential employment skills and knowledge in concert with other advanced educational opportunities.

Table 19 - Post-Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Post-Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	9,984,416	1,303,052	13.05	
Alabama	157,746	19,853	12.59	17
Alaska	20,926	2,814	13.45	13
Arizona	102,806	38,318	37.27	1
Arkansas	110,224	6,240	5.66	43
California	1,221,509	329,635	26.99	2
Colorado	101,521	14,964	14.74	11
Connecticut	127,609	6,977	5.47	44
Delaware	37,323	1,249	3.35	51
Dist. of C.	10,813	1,653	15.29	9
Florida	511,750	75,173	14.69	12
Georgia	289,741	26,262	9.06	30
Hawaii	40,142	10,107	25.18	3
Idaho	33,146	3,255	9.82	25
Illinois	595,879	89,168	14.96	10
Indiana	154,556	7,529	4.87	49
Iowa	133,442	15,996	11.99	18
Kansas	98,819	9,283	9.39	27
Kentucky	164,869	12,844	7.79	39
Louisiana	176,312	19,375	10.99	21
Maine	29,840	2,065	6.92	42
Maryland	166,032	19,522	11.76	19
Massachusetts	163,799	13,019	7.95	37
Michigan	342,985	63,216	18.43	6
Minnesota	234,334	21,130	9.02	31
Mississippi	109,561	8,812	8.04	36
Missouri	162,625	14,282	8.78	33
Montana	32,267	4,125	12.78	16
Nebraska	68,796	7,180	10.44	23
Nevada	20,617	2,050	9.94	24
New Hampshire	25,310	2,011	7.95	38
New Jersey	310,186	16,974	5.47	45
New Mexico	52,338	5,099	9.74	26
New York	754,489	62,883	8.33	35
N. Carolina	430,626	46,421	10.78	22
N. Dakota	32,637	4,307	13.20	14
Ohio	412,007	20,186	4.90	48
Oklahoma	107,395	5,832	5.43	46
Oregon	123,936	22,444	18.11	7
Pennsylvania	327,458	29,844	9.11	29
Rhode Island	19,992	1,058	5.29	47
S. Carolina	101,615	7,463	7.34	40
S. Dakota	22,287	2,002	8.98	32
Tennessee	151,226	17,773	11.75	20
Texas	623,214	52,508	8.43	34
Utah	100,874	13,059	12.95	15
Vermont	16,903	212[1]	1.25	52
Virginia	269,799	18,807	6.97	41
Washington	250,802	58,701	23.41	4
W. Virginia	63,312	2,685	4.24	50
Wisconsin	253,495	48,990	19.33	5
Wyoming	17,694	1,617	9.14	28
Puerto Rico	96,832	16,080	16.61	8

[1] Includes only those programs administered by the State Department.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Total post-secondary school enrollment. Table 19 indicates that post-secondary vocational education enrollment represents thirteen percent of the total vocational education enrollment.

Enrollment and population relationships. In order to show a comparison among the States the population age group of 20-24 years was chosen. Although this age group is not exactly appropriate for post-secondary students the data were available from census sources and provided a convenient method of comparison. (Note: Such data were not available for Puerto Rico, which accounts for the difference in the total post-secondary vocational education enrollment in Tables 19 and 20).

Table 20 indicates that the post-secondary vocational education enrollment represents roughly eight percent of the national population in the age group 20-24 years. The range among the States is from a high of twenty-six percent (Arizona) to a low of 0.6 percent (Vermont).

Table 20 - Post-Secondary Enrollment in Vocational Education as a Percent of Total Population, 20-24 Years of Age, 1971-72

States	Total Population 20-24 Years of Age	Total Post-Secondary Vocational Education Enrollment	Total Post-Secondary Vocational Education Enrollment as a Percent of Total Population 20-24	Rank Order
U.S. TOTAL	16,371,230	1,286,972	7.86	
Alabama	274,544	19,853	7.23	18
Alaska	35,576	2,814	7.91	14
Arizona	146,764	38,318	26.11	1
Arkansas	143,039	6,240	4.36	33
California	1,740,966	329,635	18.93	3
Colorado	204,508	14,964	7.32	16
Connecticut	229,794	6,977	3.04	41
Delaware	43,785	1,249	2.85	42
Dist. of C.	79,638	1,6[illegible]3	2.08	48
Florida	496,517	75,173	15.14	4
Georgia	416,949	26,262	6.30	21
Hawaii	81,555	10,107	12.39	8
Idaho	53,326	3,255	6.10	24
Illinois	843,644	89,168	10.57	9
Indiana	414,724	7,529	1.82	49
Iowa	203,691	15,996	7.85	15
Kansas	188,422	9,283	4.93	30
Kentucky	265,282	12,844	4.84	31
Louisiana	299,309	19,375	6.47	20
Maine	75,030	2,065	2.75	45
Maryland	325,455	19,522	6.00	25
Massachusetts	464,405	13,019	2.80	44
Michigan	702,742	63,216	9.00	11
Minnesota	292,037	21,130	7.24	17
Mississippi	173,332	8,812	5.08	29
Missouri	354,697	14,282	4.03	36
Montana	51,522	4,125	8.01	13
Nebraska	114,687	7,180	6.26	22
Nevada	39,075	2,050	5.25	28
New Hampshire	58,522	2,011	3.44	38
New Jersey	509,198	16,974	3.33	39
New Mexico	82,695	5,099	6.17	23
New York	1,382,376	62,883	4.55	32
N. Carolina	464,072	46,421	10.00	10
N. Dakota	48,767	4,307	8.83	12
Ohio	833,369	20,186	2.42	46
Oklahoma	207,450	5,832	2.81	43
Oregon	162,638	22,444	13.80	6
Pennsylvania	852,425	29,844	3.50	37
Rhode Island	87,963	1,058	1.20	50
S. Carolina	238,202	7,463	3.13	40
S. Dakota	48,646	2,002	4.12	35
Tennessee	321,177	17,773	5.53	26
Texas	958,507	52,508	5.48	27
Utah	97,859	13,059	13.34	7
Vermont	36,009	212[1]	.59	51
Virginia	439,818	18,807	4.28	34
Washington	295,964	58,701	19.83	2
W. Virginia	128,653	2,685	2.09	47
Wisconsin	337,098	48,990	14.53	5
Wyoming	24,807	1,617	6.52	19
Puerto Rico	NA			NA

[1] Includes only those programs administered through the State department.

Sources: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Enrollment in grades thirteen and fourteen. Table 21 shows the enrollment in grades thirteen and fourteen for three States for which the data were available. Total enrollment as shown in this table is the enrollment of all students in grades thirteen and fourteen in institutions which offer degree programs below the baccalaureate level. Of the three States only South Carolina offers degree programs below the baccalaureate level in four-year State Universities, and these are included.

Table 21 - Total Vocational Education Enrollment in Grades Thirteen and Fourteen as a Percent of Total School Enrollment in Grades Thirteen and Fourteen in Three States, 1971-72

States	GRADE 13			GRADE 14		
	Total School Enrollment	Total Voc. Ed. Enrollment	Percent Enrolled in	Total School Enrollment	Total Voc. Ed. Enrollment	Percent Enrolled in Voc. Ed.
TOTAL	100,634	68,320	67.89	29,686	15,077	50.79
Georgia	33,958	22,278	65.60	9,138	3,984	43.60
N. Carolina	55,962	36,837	65.83	15,814	9,584	60.60
S. Carolina	10,714	9,205	85.92	4,734	1,509	31.88

Source: Data collected from States.

Cooperative vocational education. The values of cooperative vocational education at the post-secondary level are basically the same as at the secondary level. Maturation and the opportunity to acquire additional education of a supplementary or general nature may aid the student in relation to his choice of an occupation, but no conclusions can be drawn because such data are not available. Table 22 shows the percentage of post-secondary schools in twenty-two States that offer cooperative education. On the average, fifty percent of the schools that offer vocational education also offer cooperative vocational education. Variation among the States is shown in the table.

When the kinds of schools offering cooperative vocational education are compared (compare Table 13 with Table 22), it is noted that Georgia, for example, offers cooperative vocational education in seventy percent of its secondary schools that offer vocational education, but in only eight percent of its post-secondary schools that offer vocational education. On the other hand Oregon offers cooperative vocational education in ninety percent of its high schools that offer vocational education and in ninety-two percent of its post-secondary schools that offer vocational education.

Table 22 – Number of Post-Secondary Schools Offering Cooperative Vocational Education as a Percent of Total Number of Post-Secondary Schools Offering Vocational Education in Twenty-Two States, 1971-72

States	Total Number of Post-Secondary Schools Offering Vocational Education	Total Number of Post-Secondary Schools Offering Cooperative Vocational Education	Number of Post-Secondary Schools Offering Cooperative Vocational Education as a Percent of Post-Secondary Schools Offering Vocational Education
TOTAL	377	189	50.13
Delaware	3	1	33.33
Georgia	25	2	8.00
Hawaii	7	6	85.71
Idaho	7	4	57.14
Kansas	30	29	96.67
Kentucky	29	19	65.52
Maine	7	3	42.86
Maryland	16	2	12.50
Missouri	22	15	68.18
Nebraska	14	12	85.17
Nevada	8	1	12.50
New Hampshire	7	1	14.29
N. Carolina	54	9	16.67
N. Dakota	6	4	66.67
Oregon	13	12	92.31
Pennsylvania	39	19	48.72
Rhode Island	2	2	100.00
S. Carolina	17	3	17.65
S. Dakota	8	5	62.50
Texas	52	32	61.54
Utah	6	3	50.00
W. Virginia	5	5	100.00

Source: Data collected from various States.

Work study programs. Fifteen States that identified the number of schools offering post-secondary education offered work study programs in these schools. These data are shown in Table 23.

Table 23 - Number of Post-Secondary Schools Offering Work Study as a Percent of Total Number of Post-Secondary Schools Offering Vocational Education in Fifteen States, 1971-72

States	Tot. Number of Post-Sec. Schools Offering Voc. Education	Tot. Number of Post-Sec. Schools Offering Work Study	Percent of Total Number of Post-Secondary Schools Offering Voc. Ed.
TOTAL	289	195	67.47
Arizona	12	5	41.67
Georgia	25	17	68.00
Hawaii	7	6	85.71
Kentucky	29	9	31.03
Louisiana	32	31	96.88
Maine	7	6	85.71
Minnesota	32	31	96.88
Montana	10	2	20.00
Nebraska	14	7	50.00
New Hampshire	7	7	100.00
N. Carolina	54	46	85.19
Oklahoma	29	2	6.90
S. Carolina	17	17	100.00
S. Dakota	8	6	75.00
Utah	6	3	50.00

Source: Data collected from various States.

Programs for the disadvantaged and handicapped. Tables 24 and 25 display the data relating post-secondary vocational education programs and programs devoted solely to the disadvantaged and handicapped. It is obvious that many States have faced the problem of vocational preparation (at the post-secondary level) of disadvantaged and handicapped persons and have developed special programs for their purpose.

Table 24 - Number of Post-Secondary Vocational Education Programs Solely for Disadvantaged as a Percent of Total Post-Secondary Vocational Education Programs in Twenty-Two States, 1971-72

States	Post-Secondary Programs	Programs Solely for Disadvantaged	Percent
TOTAL	4,895	372	7.60
Arkansas	198	16	8.08
Connecticut	267	4	1.50
Delaware	20	3	15.00
Georgia	81	14	17.28
Idaho	98	10	10.20
Iowa	343	55	16.03
Kansas	184	3	1.63
Maine	41	2	4.88
Maryland	195	10	5.13
Minnesota	751	16	2.13
Nebraska	165	24	14.55
Nevada	71	1	1.41
New Hampshire	30	3	10.00
N. Carolina	199	56	28.14
N. Dakota	70	1	1.43
Oklahoma	126	3	2.38
Tennessee	323	5	1.55
Texas	720	73	10.14
Vermont	3	0	0.00
W. Virginia	210	2	.95
Wisconsin	744	69	9.27
Wyoming	56	2	3.57

Source: Data collected from various States.

Table 25 - Number of Post-Secondary Vocational Education Programs Solely for Handicapped as a Percent of Total Post-Secondary Vocational Education Programs in Thirteen States, 1971-72

States	Post-Secondary Programs	Programs Solely for Handicapped	Percent
TOTAL	4,026	211	5.24
Arkansas	198	12	6.06
Connecticut	267	29	10.86
Georgia	81	14	17.28
Hawaii	106	0	0.00
Idaho	98	3	3.06
Iowa	343	45	13.12
Kansas	184	1	.54
Minnesota	751	12	1.60
N. Carolina	199	54	27.14
Rhode Island	12	2	16.67
Tennessee	323	3	.93
Texas	720	3	.42
Wisconsin	744	33	4.44

Source: Data collected from various States.

The interpretation process is extremely difficult. This problem is representative of (1) the confusion among the States about terminology, (2) the variety of ways the States acquire data about the numerous facets of their vocational education programs, (3) the inability to know how many disadvantaged and handicapped students are enrolled in regular programs of vocational education, and (4) interpretation of the intent of the vocational education Acts. It would be patently incorrect to conclude that some States are not concerned about the vocational preparation of the disadvantaged and handicapped in their States.

Adult Vocational Education Enrollment

Concern for the vocational education of adults is as old as the vocational education movement. At first the emphasis was devoted exclusively to improving the working posture of *employed* adults. Later, vocational education legislation expanded the concept broadly to include nearly all adults and their variety of vocational education needs.

Total adult vocational education enrollment. During the Fiscal year 1972 nearly thirty-one percent of the total vocational education enrollment represented adults preparing in many ways for the world of work. Table 26 shows how the 3,064,030 enrollees were distributed among the States. Iowa had the largest percentage of adult enrollment (48.8 percent) and Illinois had the smallest (4.6 percent). Again the problem of interpretation -- what's an adult? -- for reporting purposes is not uniform among the States.

Table 26 - Adult Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Adult Vocational Education Enrollment	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	9,984,416	3,064,030	30.69	
Alabama	157,746	44,543	28.24	28
Alaska	20,926	6,258	29.91	23
Arizona	102,806	14,209	13.82	48
Arkansas	110,224	42,292	38.37	10
California	1,221,509	311,663	25.51	34
Colorado	101,521	34,514	34.00	17
Connecticut	127,609	24,830	19.46	44
Delaware	37,323	4,025	10.78	50
Dist. of C.	10,813	3,454	31.94	20
Florida	511,750	176,495	34.49	16
Georgia	289,741	101,120	34.90	15
Hawaii	40,142	11,100	27.65	29
Idaho	33,146	7,514	22.67	38
Illinois	595,879	27,612	4.63	52
Indiana	154,556	45,521	29.45	25
Iowa	133,442	65,052	48.75	1
Kansas	98,819	46,723	47.28	4
Kentucky	164,869	52,856	32.06	19
Louisiana	176,312	30,753	17.44	47
Maine	29,840	10,996	36.85	13
Maryland	166,032	34,809	20.97	42
Massachusetts	163,799	29,096	17.76	46
Michigan	342,985	97,584	28.45	26
Minnesota	234,334	103,118	44.00	6
Mississippi	109,561	42,930	39.18	9
Missouri	162,625	36,176	22.25	39
Montana	32,267	8,726	27.04	31
Nebraska	68,796	25,564	37.16	12
Nevada	20,617	4,098	19.88	43
New Hampshire	25,310	5,378	21.25	41
New Jersey	310,186	92,773	29.91	24
New Mexico	52,338	7,201	13.76	49
New York	754,489	208,321	27.61	30
N. Carolina	430,626	209,221	48.59	2
N. Dakota	32,637	8,263	25.32	36
Ohio	412,007	195,988	47.57	3
Oklahoma	107,395	40,145	37.38	11
Oregon	123,936	37,331	30.12	22
Pennsylvania	327,458	108,541	33.15	18
Rhode Island	19,992	5,684	28.43	27
S. Carolina	101,615	18,272	17.98	45
S. Dakota	22,287	4,831	21.68	40
Tennessee	151,226	38,493	25.45	35
Texas	623,214	265,484	42.60	7
Utah	100,874	25,270	25.05	37
Vermont	16,903	4,549	26.91	32
Virginia	269,799	123,352	45.72	5
Washington	250,802	66,334	26.45	33
W. Virginia	63,312	22,293	35.21	14
Wisconsin	253,495	101,227	39.93	8
Wyoming	17,694	988	5.58	51
Puerto Rico	96,832	30,460	31.46	21

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Adult enrollment and population. Table 27 compares the total adult vocational education enrollment with the size of population age group 25-64 years in each State. On a national basis the total enrollment represents 3.4 percent of the age group. North Carolina shows the largest enrollment, 9.38 percent, and Illinois the lowest with 0.55 percent. Discounting the problems of interpretation of the term adult, it is quite obvious that the programs for adults differ markedly between North Carolina and Illinois.

Table 27 - Vocational Education Adult Enrollment as a Percent of Total Population 25-64 Years of Age, 1971-72

States	Total Population 25-64 Years of Age	Total Adult Vocational Education Enrollment	Total Adult Vocational Education Enrollment as a Percent of Total Population 25-64	Rank Order
U.S. TOTAL	89,804,912	3,033,570	3.38	
Alabama	1,481,751	46,543	3.01	24
Alaska	128,119	6,258	4.88	11
Arizona	753,881	14,209	1.88	38
Arkansas	819,469	42,292	5.16	9
California	9,069,321	311,663	3.44	21
Colorado	953,191	34,514	3.62	19
Connecticut	1,395,515	24,830	1.78	40
Delaware	243,772	4,025	1.65	46
Dist. of C.	352,079	3,454	.98	49
Florida	2,976,877	176,495	5.93	4
Georgia	1,989,653	101,120	5.08	10
Hawaii	340,588	11,100	3.26	23
Idaho	301,102	7,514	2.50	30
Illinois	4,995,386	27,612	.55	51
Indiana	2,252,293	45,521	2.02	35
Iowa	1,190,164	65,052	5.47	7
Kansas	959,765	46,723	4.87	12
Kentucky	1,375,506	52,856	3.84	18
Louisiana	1,502,893	30,753	2.05	34
Maine	423,084	10,996	2.60	28
Maryland	1,782,436	34,809	1.95	37
Massachusetts	2,506,201	29,096	1.16	48
Michigan	3,839,216	97,584	2.54	29
Minnesota	1,581,183	103,118	6.52	2
Mississippi	888,484	42,930	4.83	13
Missouri	2,061,068	36,176	1.77	41
Montana	295,875	8,726	2.95	25
Nebraska	621,686	25,564	4.11	16
Nevada	234,454	4,098	1.75	42
New Hampshire	319,207	5,378	1.68	44
New Jersey	3,357,863	92,773	2.76	27
New Mexico	418,835	7,201	1.72	43
New York	8,453,238	208,321	2.46	31
N. Carolina	2,231,690	209,221	9.38	1
N. Dakota	251,965	8,263	3.28	22
Ohio	4,701,044	195,988	4.17	15
Oklahoma	1,121,977	40,145	3.58	20
Oregon	928,897	37,331	4.02	17
Pennsylvania	5,416,432	108,541	2.00	36
Rhode Island	418,952	5,684	1.36	47
S. Carolina	1,092,764	18,272	1.67	45
S. Dakota	268,950	4,831	1.80	39
Tennessee	1,743,850	38,493	2.21	33
Texas	4,824,944	265,484	5.50	6
Utah	414,697	25,270	6.09	3
Vermont	185,221	4,549	2.46	32
Virginia	2,078,450	123,352	5.93	5
Washington	1,503,510	66,334	4.41	14
W. Virginia	774,966	22,293	2.88	26
Wisconsin	1,857,026	101,227	5.45	8
Wyoming	145,382	988	.68	50
Puerto Rico	NA			NA

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Apprenticeship and adult preparatory/supplementary vocational education. Table 28 shows the relationship that apprenticeship and adult preparatory/supplementary training bear to the total adult vocational education enrollment. The range in apprenticeship is from zero in several States to forty-seven percent in Hawaii. Preparatory/supplementary constitutes the largest segment of adult vocational education (94.38 percent). It ranges from 100 percent in four States and Puerto Rico to 52.64 percent in Hawaii.

Table 28 - Apprenticeship and Preparatory/Supplementary Adult Enrollment as a Percent of Total Adult Vocational Education Enrollment, 1971-72

States	Total Adult Enrollment	Preparatory/ Supplementary Adult Enrollment	Percent of Adults in Preparatory/ Supplementary	Apprenticeship Enrollment	Percent of Adults in Apprenticeship
U.S. TOTAL	3,064,030	2,891,914	94.38	172,116	5.62
Alabama	44,543	42,732	95.93	1,811	4.07
Alaska	6,258	6,006	95.97	252	4.03
Arizona	14,209	13,569	95.50	640	4.50
Arkansas	42,292	40,026	94.64	2,266	5.36
California	311,663	289,346	92.84	22,317	7.16
Colorado	34,514	34,514[1]	100.00	0	0.00
Connecticut	24,830	19,036	76.67	5,794	23.33
Delaware	4,025	3,180	79.01	845	20.99
Dist. of C.	3,454	3,413	98.81	41	1.19
Florida	176,495	168,191	95.30	8,304	4.70
Georgia	101,120	99,071	97.97	2,049	2.03
Hawaii	11,100	5,843	52.64	5,257	47.36
Idaho	7,514	6,959	92.61	555	7.39
Illinois	27,612	21,295	77.12	6,317	22.88
Indiana	45,521	40,715	89.44	4,806	10.56
Iowa	65,052	63,754[1]	98.00	1,298	2.00
Kansas	46,723	45,380	97.13	1,343	2.87
Kentucky	52,856	51,646	97.71	1,210	2.29
Louisiana	30,753	28,469	92.57	2,284	7.43
Maine	10,996	10,023	91.15	973	8.85
Maryland	34,809	32,618[1]	93.71	2,191	6.29
Massachusetts	29,096	24,982	85.86	4,114	14.14
Michigan	97,584	86,357	88.50	11,227	11.50
Minnesota	103,118	96,414	93.50	6,704	6.50
Mississippi	42,930	41,844	97.47	1,086	2.53
Missouri	36,176	31,492	87.05	4,684	12.95
Montana	8,726	8,166	93.58	560	6.42
Nebraska	25,564	25,564	100.00	0	0.00
Nevada	4,098	3,301	80.55	797	19.45
New Hampshire	5,378	4,932[1]	91.71	446	8.29
New Jersey	92,773	85,753	92.43	7,020	7.57
New Mexico	7,201	6,225	86.45	976	13.55
New York	208,321	195,721	93.95	12,600	6.05
N. Carolina	209,221	207,579	99.22	1,642	.78
N. Dakota	8,263	7,865	95.18	398	4.82
Ohio	195,988	184,958	94.37	11,030	5.63
Oklahoma	40,145	39,285	97.86	860	2.14
Oregon	37,331	34,862	93.39	2,469	6.61
Pennsylvania	108,541	102,032	94.00	6,509	6.00
Rhode Island	5,684	4,652	81.84	1,032	18.16
S. Carolina	18,272	18,272	100.00	0	0.00
S. Dakota	4,831	4,581	94.83	250	5.17
Tennessee	38,493	36,616	95.12	1,877	4.88
Texas	265,484	259,011	97.56	6,473	2.44
Utah	25,270	23,635	93.53	1,635	6.47
Vermont	4,549	4,549	100.00	0	0.00
Virginia	123,352	115,300	93.47	8,052	6.53
Washington	66,334	63,181[1]	95.25	3,153	4.75
W. Virginia	22,293	21,478	96.34	815	3.66
Wisconsin	101,227	96,207	95.04	5,020	4.96
Wyoming	988	854	86.44	134	13.56
Puerto Rico	30,460	30,460	100.00	0	0.00

[1] Supplementary Adult enrollment only. No Preparatory Adult was reported.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., 1971-72.

Enrollment in the Service Areas

Enrollment for Fiscal year 1972 is shown for the eight service areas of vocational education, namely: agricultural education, distributive education, health occupations education, consumer and homemaking education, occupational home economics education, office occupations education, technical education, and trade and industrial education. These service areas have persisted as larger areas for reporting vocational education enrollment because of the nature of Federal vocational education appropriations up to the time of the Vocational Education Act of 1963. This method of reporting is as inherently inadequate as the method of relating enrollment to educational levels. The problem has become complex because of the vast variety of jobs and occupations for which training is provided.

The long-sought goal for reporting vocational education enrollment, and for interpretation of statistical data is a system which could effectively relate demand with supply data. Despite admirable efforts by the U.S. Department of Labor the ideal system still has not been achieved. The task should become one of the priority efforts of Federal agencies.

Much progress has been made toward reporting unduplicated count of persons, and where duplication occurs in the case of the service areas, the fact is noted. However, in no way can the length of time a person spends in a vocational education program be determined from enrollment data reported by service areas. A person who spends three hours a week in a vocational program is reported as one enrollment in the same way as a person who spends thirty hours a week.

Tables 29 through 36 on the following pages show by State the percentages of total vocational enrollment being served by each service area. The rank order of the various States is also included.

Agricultural education. Table 29 indicates that agricultural education represents 8.6 percent of the nation's program of vocational education. This percentage ranges from a high of 27.51 percent in Alabama to a low of 0.24 percent in Alaska.

Table 29 - Vocational Education Enrollment in Agriculture Education as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Agriculture Education Enrollment	Total Agriculture Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	864,429	8.60	
Alabama	157,746	43,392	27.51	1
Alaska	20,926	51	.24	52
Arizona	102,806	4,262	4.15	41
Arkansas	110,224	22,785	20.67	6
California	1,221,509	53,900	4.41	37
Colorado	101,521	4,243	4.18	40
Connecticut	127,609	2,059	1.61	49
Delaware	37,323	1,216	3.26	44
Dist. of C.	10,813	178	1.65	48
Florida	511,750	26,602	5.20	32
Georgia	292,211[2]	37,745	12.92	14
Hawaii	40,142	2,348	5.85	31
Idaho	33,146	5,336	16.10	10
Illinois	595,879	30,335	5.09	35
Indiana	154,556	24,353	15.76	11
Iowa	133,442	29,813	22.34	3
Kansas	100,052[3]	10,142	10.14	22
Kentucky	169,031[4]	20,190	11.94	16
Louisiana	176,312	19,363	10.98	19
Maine	29,840	658	2.21	45
Maryland	166,032	3,519	2.12	46
Massachusetts	163,799	2,149	1.31	50
Michigan	342,985	13,897	4.05	43
Minnesota	234,334	34,180	14.59	12
Mississippi	109,561	21,506	19.63	8
Missouri	162,625	17,699	10.88	21
Montana	32,267	3,689	11.43	17
Nebraska	68,796[5]	8,223	11.95	15
Nevada	27,276	1,402	5.14	34
New Hampshire	25,310	1,316	5.20	33
New Jersey	310,186	2,352	.76	51
New Mexico	52,338	4,149	7.93	25
New York	754,489[6]	14,893	1.97	47
N. Carolina	436,016	33,502	7.68	27
N. Dakota	32,637	5,632	17.26	9
Ohio	412,007	34,254	8.31	23
Oklahoma	118,766[7]	23,768	20.01	7
Oregon	123,936	5,048	4.07	42
Pennsylvania	331,782[8]	14,052	4.24	38
Rhode Island	19,992	1,231	6.16	30
S. Carolina	101,615	21,087	20.75	4
S. Dakota	22,287	4,612	20.69	5
Tennessee	151,226	20,901	13.82	13
Texas	623,214	147,978	23.74	2
Utah	133,903[9]	5,663	4.23	39
Vermont	17,269[10]	1,389	8.04	24
Virginia	269,799	21,144	7.84	26
Washington	250,802	15,636	6.23	29
W. Virginia	63,312	4,772	7.54	28
Wisconsin	253,495	28,964	11.43	18
Wyoming	17,694	1,933	10.92	20
Puerto Rico	96,832	4,918	5.08	36

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.
[2] Includes 2,470 duplication within occupational areas.
[3] Includes 1,233 duplication within occupational areas.
[4] Includes 4,162 duplication within occupational areas.
[5] Includes 6,659 duplication within occupational areas.
[6] Includes 5,390 duplication within occupational areas.
[7] Includes 11,371 duplication within occupational areas.
[8] Includes 4,324 duplication within occupational areas.
[9] Includes 33,029 duplication within occupational areas.
[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Distributive education. Distributive education accounts for 6.3 percent of the total vocational education program, Table 30. Enrollment ranges from a high of 19.4 percent in Virginia to a low of 1.65 percent in New Hampshire. For more than a decade Virginia has maintained leadership among the States in this area.

Table 30 - Vocational Education Enrollment in Distributive Education as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Distributive Education Enrollment	Total Distributive Education Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	634,115	6.31	
Alabama	157,746	8,796	5.58	25
Alaska	20,926	2,414	11.54	3
Arizona	102,806	12,603	12.26	2
Arkansas	110,224	5,436	4.93	29
California	1,221,509	70,255	5.75	23
Colorado	101,521	11,529	11.36	5
Connecticut	127,609	4,256	3.34	47
Delaware	37,323	2,276	6.10	20
Dist. of C.	10,813	860	7.95	10
Florida	511,750	50,031	9.78	8
Georgia	292,211[2]	12,864	4.40	34
Hawaii	40,142	1,680	4.19	38
Idaho	33,146	1,271	3.83	41
Illinois	595,879	23,808	4.00	40
Indiana	154,556	6,704	4.34	36
Iowa	133,442	4,336	3.25	48
Kansas	100,052[3]	6,840	6.84	13
Kentucky	169,031[4]	11,943	7.07	11
Louisiana	176,312	10,153	5.76	22
Maine	29,840	696	2.33	50
Maryland	166,032	4,774	2.88	49
Massachusetts	163,799	6,628	4.05	39
Michigan	342,985	38,872	11.33	6
Minnesota	234,334	15,813	6.75	14
Mississippi	109,561	6,471	5.91	21
Missouri	162,625	13,482	8.29	9
Montana	32,267	1,667	5.17	27
Nebraska	68,796[5]	4,833	7.03	12
Nevada	27,276	958	3.51	45
New Hampshire	25,310	418	1.65	52
New Jersey	310,186	10,883	3.51	46
New Mexico	52,338	1,843	3.52	44
New York	754,489	28,527	3.78	42
N. Carolina	436,016[6]	18,695	4.29	37
N. Dakota	32,637	2,173	6.66	15
Ohio	412,007	44,024	10.69	7
Oklahoma	118,766[7]	5,921	4.99	28
Oregon	123,936[8]	5,775	4.66	32
Pennsylvania	331,782	12,055	3.63	43
Rhode Island	19,992	888	4.44	33
S. Carolina	101,615	4,919	4.84	30
S. Dakota	22,287	1,465	6.57	17
Tennessee	151,226	7,910	5.23	26
Texas	623,214[9]	40,731	6.54	18
Utah	133,903	8,478	6.33	19
Vermont	17,269[10]	751	4.35	35
Virginia	269,799	52,472	19.45	1
Washington	250,802	16,585	6.61	16
W. Virginia	63,312	1,165	1.84	51
Wisconsin	253,495	14,295	5.64	24
Wyoming	17,694	839	4.74	31
Puerto Rico	96,832	11,054	11.42	4

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.

[2] Includes 2,470 duplication within occupational areas.

[3] Includes 1,233 duplication within occupational areas.

[4] Includes 4,162 duplication within occupational areas.

[5] Includes 6,659 duplication within occupational areas.

[6] Includes 5,390 duplication within occupational areas.

[7] Includes 11,371 duplication within occupational areas.

[8] Includes 4,324 duplication within occupational areas.

[9] Includes 33,029 duplication within occupational areas.

[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Health occupations education. Table 31 shows that health occupations education accounts for 3.33 percent of the total vocational education program. State percentages vary from a high of 8.57 percent in Iowa to a low of 1.09 percent in Wyoming.

Table 31 - Vocational Education Enrollment in Health Occupations as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Health Occupations Enrollment	Total Health Occupations Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	334,478	3.33	
Alabama	157,746	2,876	1.82	45
Alaska	20,926	402	1.92	40
Arizona	102,806	8,062	7.84	2
Arkansas	110,224	3,018	2.74	23
California	1,221,509	43,011	3.52	18
Colorado	101,521	3,046	3.00	19
Connecticut	127,609	2,728	2.14	36
Delaware	37,323	650	1.74	47
Dist. of C.	10,813	729	6.74	5
Florida	511,750	19,803	3.87	15
Georgia	292,211[2]	6,514	2.23	35
Hawaii	40,142	461	1.15	50
Idaho	33,146	1,548	4.67	8
Illinois	595,879	17,682	2.97	20
Indiana	154,556	4,136	2.68	25
Iowa	133,442	11,430	8.57	1
Kansas	100,052[3]	1,390	1.39	48
Kentucky	169,031[4]	3,325	1.97	39
Louisiana	176,312	4,547	2.58	29
Maine	29,840	529	1.77	46
Maryland	166,032	3,808	2.29	34
Massachusetts	163,799	4,382	2.68	26
Michigan	342,985	14,598	4.26	11
Minnesota	234,334	4,468	1.91	42
Mississippi	109,561	2,573	2.35	33
Missouri	162,625	7,394	4.55	9
Montana	32,267	595	1.84	43
Nebraska	68,796	4,842	7.04	3
Nevada	27,276[5]	1,840	6.75	4
New Hampshire	25,310	1,061	4.19	12
New Jersey	310,186	7,889	2.54	30
New Mexico	52,338	1,538	2.94	21
New York	754,489	32,851	4.35	10
N. Carolina	436,016[6]	28,389	6.51	6
N. Dakota	32,637	848	2.60	28
Ohio	412,007	8,771	2.13	37
Oklahoma	118,766[7]	4,628	3.90	13
Oregon	123,936	4,541	3.66	17
Pennsylvania	331,782[8]	12,865	3.88	14
Rhode Island	19,992	999	5.00	7
S. Carolina	101,615	1,153	1.13	51
S. Dakota	22,287	470	2.11	38
Tennessee	151,226	3,697	2.44	32
Texas	623,214	16,894	2.71	24
Utah	133,903[9]	1,842	1.38	49
Vermont	17,269[10]	436	2.52	31
Virginia	269,799	4,974	1.84	44
Washington	250,802	6,957	2.77	22
W. Virginia	63,312	1,662	2.63	27
Wisconsin	253,495	9,577	3.78	16
Wyoming	17,694	192	1.09	52
Puerto Rico	96,832	1,857	1.92	41

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.
[2] Includes 2,470 duplication within occupational areas.
[3] Includes 1,233 duplication within occupational areas.
[4] Includes 4,162 duplication within occupational areas.
[5] Includes 6,659 duplication within occupational areas.
[6] Includes 5,390 duplication within occupational areas.
[7] Includes 11,371 duplication within occupational areas.
[8] Includes 4,324 duplication within occupational areas.
[9] Includes 33,029 duplication within occupational areas.
[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Consumer and homemaking education. The highest percent to which consumer and homemaking was a part of total enrollment in vocational education was 45.5 percent, Rhode Island. The lowest was 4.8 percent, Illinois. These data are shown in Table 32.

Table 32 - Vocational Education Enrollment in Consumer & Homemaking as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Consumer & Homemaking Enrollment	Total Consumer & Homemaking Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	2,581,851	25.68	
Alabama	157,746	38,047	24.12	37
Alaska	20,926	2,275	10.87	49
Arizona	102,806	23,742	23.09	39
Arkansas	110,224	38,259	34.71	9
California	1,221,509	198,558	16.26	47
Colorado	101,521	28,620	28.19	26
Connecticut	127,609	27,438	21.50	41
Delaware	37,323	6,374	17.08	44
Dist. of C.	10,813	2,899	26.81	31
Florida	511,750	151,271	29.56	24
Georgia	292,211[2]	70,683	24.19	35
Hawaii	40,142	10,681	26.61	32
Idaho	33,146	12,505	37.73	5
Illinois	595,879	28,572	4.79	52
Indiana	154,556	54,874	35.50	8
Iowa	133,442[3]	47,720	35.76	7
Kansas	100,052[4]	23,426	23.41	38
Kentucky	169,031	51,131	30.25	22
Louisiana	176,312	54,550	30.94	20
Maine	29,840	2,793	9.36	51
Maryland	166,032	46,507	28.01	28
Massachusetts	163,799	16,055	9.80	50
Michigan	342,985	74,871	21.83	40
Minnesota	234,334	73,152	31.22	18
Mississippi	109,561	31,061	28.35	25
Missouri	162,625	66,154	40.68	4
Montana	32,267	6,926	21.46	42
Nebraska	68,796	21,825	31.72	17
Nevada	27,276[5]	3,742	13.72	48
New Hampshire	25,310	8,630	34.10	11
New Jersey	310,186	94,498	30.46	21
New Mexico	52,338	17,026	32.53	14
New York	754,489	211,354	28.01	29
N. Carolina	436,016[6]	119,177	27.33	30
N. Dakota	32,637	11,801	36.16	6
Ohio	412,007	136,454	33.12	13
Oklahoma	118,766[7]	30,403	25.60	34
Oregon	123,936	40,001	32.28	16
Pennsylvania	331,782[8]	55,454	16.71	45
Rhode Island	19,992	9,099	45.51	1
S. Carolina	101,615	30,238	29.76	23
S. Dakota	22,287	9,138	41.00	3
Tennessee	151,226	50,289	33.25	12
Texas	623,214	281,303	45.14	2
Utah	133,903[9]	35,362	26.41	33
Vermont	17,269[10]	5,607	32.47	15
Virginia	269,799	44,975	16.67	46
Washington	250,802	70,561	28.13	27
W. Virginia	63,312	21,596	34.11	10
Wisconsin	253,495	49,724	19.62	43
Wyoming	17,694	4,271	24.14	36
Puerto Rico	96,832	30,179	31.17	19

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.
[2] Includes 2,470 duplication within occupational areas.
[3] Includes 1,233 duplication within occupational areas.
[4] Includes 4,162 duplication within occupational areas.
[5] Includes 6,659 duplication within occupational areas.
[6] Includes 5,390 duplication within occupational areas.
[7] Includes 11,371 duplication within occupational areas.
[8] Includes 4,324 duplication within occupational areas.
[9] Includes 33,029 duplication within occupational areas.
[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

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Occupational home economics education. This phase of vocational education bears directly upon preparation for employment. Table 33 presents the data for all the States indicating the extent to which it has become a part of the total program. On a national basis 2.65 percent of the total vocational education enrollment was devoted to occupational home economics. Enrollment in Illinois, 8.25 percent, was the highest among the States and in Rhode Island, 0.21 percent, the lowest.

California reports that its home economics occupational education program (HERO) continues to expand in the secondary schools. Instructional programs with the highest enrollment were: (1) Care and guidance of children; (2) Clothing management and production; (3) Food management, production and services; (4) Home furnishing, equipment and services; and (5) Institutional and home management, and supporting services. The community colleges in California continued to play a major role in responding to the demands for the preparation of well-trained individuals to be employed in a variety of early childhood education programs. A total of fifty-eight community colleges offered programs related to early childhood development.

Table 33 - Vocational Education Enrollment in Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Occupational Home Economics Enrollment	Total Occupational Home Economics Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	266,333	2.65	
Alabama	157,746	4,922	3.12	12
Alaska	20,926	438	2.09	20
Arizona	102,806	4,987	4.85	3
Arkansas	110,224	989	.90	44
California	1,221,509	31,973	2.62	14
Colorado	101,521	3,731	3.68	9
Connecticut	127,609	752	.59	50
Delaware	37,323	1,231	3.30	11
Dist. of C.	10,813	309	2.86	13
Florida	511,750	22,953	4.49	4
Georgia	292,211[2]	11,150	3.82	8
Hawaii	40,142	407	1.01	42
Idaho	33,146	348	1.05	41
Illinois	595,879	49,169	8.25	1
Indiana	154,556	2,959	1.91	26
Iowa	133,442	2,240	1.68	31
Kansas	100,052[3]	1,947	1.95	24
Kentucky	169,031[4]	2,097	1.24	37
Louisiana	176,312	1,955	1.11	39
Maine	29,840	219	.73	46
Maryland	166,032	3,226	1.94	25
Massachusetts	163,799	3,088	1.89	27
Michigan	342,985	13,529	3.94	7
Minnesota	234,334	12,771	5.45	2
Mississippi	109,561	1,740	1.59	33
Missouri	162,625	2,549	1.57	34
Montana	32,267	168	.52	51
Nebraska	68,796	418	.61	49
Nevada	27,276[5]	543	1.99	22
New Hampshire	25,310	336	1.33	36
New Jersey	310,186	6,667	2.15	18
New Mexico	52,338	1,248	2.38	16
New York	754,489	6,659	.88	45
N. Carolina	436,016[6]	18,103	4.15	6
N. Dakota	32,637	587	1.80	30
Ohio	412,007	7,456	1.81	29
Oklahoma	118,766[7]	2,361	1.99	23
Oregon	123,936	2,624	2.12	19
Pennsylvania	331,782[8]	7,867	2.37	17
Rhode Island	19,392	42	.21	52
S. Carolina	101,615	1,193	1.17	38
S. Dakota	22,287	781	3.50	10
Tennessee	151,226	2,279	1.51	35
Texas	623,214	6,312	1.01	43
Utah	133,903[9]	2,233	1.67	32
Vermont	17,269[10]	348	2.02	21
Virginia	269,799	1,667	.62	48
Washington	250,802	6,570	2.62	15
W. Virginia	63,312	1,161	1.83	28
Wisconsin	2[illegible],495	2,703	1.07	40
Wyoming	17,694	115	.65	47
Puerto Rico	96,832	4,213	4.35	5

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.
[2] Includes 2,470 duplication within occupational areas.
[3] Includes 1,233 duplication within occupational areas.
[4] Includes 4,162 duplication within occupational areas.
[5] Includes 6,659 duplication within occupational areas.
[6] Includes 5,390 duplication within occupational areas.
[7] Includes 11,371 duplication within occupational areas.
[8] Includes 4,324 duplication within occupational areas.
[9] Includes 33,029 duplication within occupational areas.
[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Office occupations education. Office occupations education, with a long historical heritage in American education, became associated with the national vocational education program in the 1960s. During Fiscal year 1972 the enrollment in office occupations education represented twenty-three percent of the total vocational education enrollment. Table 34 indicates how 2.3 million students enrolled in office occupations were distributed throughout the Nation. Alaska tops the list with fifty-three percent of its programs in this area, and Rhode Island is the lowest with four percent.

Table 34 - Vocational Education Enrollment in Office Occupations as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Office Occupations Enrollment	Total Office Occupations Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	2,341,366	23.29	
Alabama	157,746	16,445	10.42	44
Alaska	20,926	11,087	52.98	1
Arizona	102,806	20,623	20.06	28
Arkansas	110,224	11,762	10.67	43
California	1,221,509	381,413	31.22	11
Colorado	101,521	20,480	20.17	27
Connecticut	127,609	50,790	39.80	4
Delaware	37,323	12,622	33.82	10
Dist. of C.	10,813	842	7.79	46
Florida	511,750	100,086	19.56	29
Georgia	292,211[2]	84,095	28.78	15
Hawaii	40,142	10,664	26.57	17
Idaho	33,146	5,583	16.84	32
Illinois	595,879	230,303	38.65	5
Indiana	154,556	27,516	17.80	31
Iowa	133,442	11,945	8.95	45
Kansas	100,052[3]	12,092	12.09	41
Kentucky	169,031[4]	23,219	13.74	34
Louisiana	176,312	54,915	31.15	12
Maine	29,840	12,447	41.71	3
Maryland	166,032	59,350	35.75	8
Massachusetts	163,799	79,962	48.82	2
Michigan	342,985	64,834	18.90	30
Minnesota	234,334	30,691	13.10	35
Mississippi	109,561	7,851	7.17	48
Missouri	162,625	21,069	12.96	38
Montana	32,267	7,870	24.39	20
Nebraska	68,796	8,678	12.61	40
Nevada	27,276[5]	7,150	26.21	18
New Hampshire	25,310	7,046	27.84	16
New Jersey	310,186	113,753	36.67	6
New Mexico	52,338	15,920	30.42	13
New York	754,489	273,849	36.30	7
N. Carolina	436,016[6]	32,718	7.50	47
N. Dakota	32,637	5,215	15.98	33
Ohio	412,007	52,798	12.81	39
Oklahoma	118,766[7]	7,126	6.00	51
Oregon	123,936	26,056	21.02	25
Pennsylvania	331,782[8]	77,668	23.41	21
Rhode Island	19,992	810	4.05	52
S. Carolina	101,615	10,983	10.81	42
S. Dakota	22,287	1,425	6.39	50
Tennessee	151,226	19,626	12.98	36
Texas	623,214	41,866	6.72	49
Utah	133,903[9]	28,862	21.55	24
Vermont	17,269[10]	2,242	12.98	37
Virginia	269,799	60,647	22.48	23
Washington	250,802	61,837	24.66	19
W. Virginia	63,312	14,395	22.74	22
Wisconsin	253,495	73,574	29.02	14
Wyoming	17,694	6,282	35.50	9
Puerto Rico	96,832	20,284	20.95	26

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.
[2] Includes 2,470 duplication within occupational areas.
[3] Includes 1,233 duplication within occupational areas.
[4] Includes 4,162 duplication within occupational areas.
[5] Includes 6,659 duplication within occupational areas.
[6] Includes 5,390 duplication within occupational areas.
[7] Includes 11,371 duplication within occupational areas.
[8] Includes 4,324 duplication within occupational areas.
[9] Includes 33,029 duplication within occupational areas.
[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Technical education. Technical education is one of the newer areas of vocational education and was created in part by borrowing certain instructional programs from other areas and, in perhaps the major part, by inaugurating areas of instruction with a high concentration upon technical aspects. In general "technical aspects" would relate to the degree of concentration upon mathematics and science that is needed in performing the work of the occupation, and to highly sophisticated aspects of the occupation. Table 35 shows the enrollment data.

Table 35 - Vocational Education Enrollment in Technical Education as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Technical Education Enrollment	Total Technical Education Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420[1]	335,661	3.34	
Alabama	157,746	847	.54	50
Alaska	20,926	1,747	8.35	2
Arizona	102,806	7,134	6.94	5
Arkansas	110,224	121	.11	52
California	1,221,509	54,552	4.47	10
Colorado	101,521	4,203	4.14	14
Connecticut	127,609	10,208	8.00	3
Delaware	37,323	781	2.09	31
Dist. of C.	10,813	109	1.01	47
Florida	511,750	28,294	5.53	7
Georgia	292,211[2]	7,762	2.66	28
Hawaii	40,142	628	1.56	38
Idaho	33,146	597	1.80	34
Illinois	595,879	13,248	2.22	30
Indiana	154,556	1,804	1.17	45
Iowa	133,442	1,453	1.09	46
Kansas	100,052[3]	866	.87	48
Kentucky	169,031[4]	1,252	.74	49
Louisiana	176,312	3,597	2.04	32
Maine	29,840	462	1.55	39
Maryland	166,032	9,176	5.53	8
Massachusetts	163,799	4,686	2.86	25
Michigan	342,985	17,484	5.10	9
Minnesota	234,334	8,050	3.44	20
Mississippi	109,561	8,175	7.46	4
Missouri	162,625	4,333	2.66	29
Montana	32,267	1,302	4.04	15
Nebraska	68,796	990	1.44	41
Nevada	27,276[5]	3,091	11.33	1
New Hampshire	25,310	711	2.81	26
New Jersey	310,186	11,884	3.83	16
New Mexico	52,338	696	1.33	43
New York	754,489	31,526	4.18	12
N. Carolina	436,016[6]	11,751	2.70	27
N. Dakota	32,637	477	1.46	40
Ohio	412,007	6,812	1.65	37
Oklahoma	118,766[7]	4,943	4.16	13
Oregon	123,936	3,660	2.95	23
Pennsylvania	331,782[8]	19,773	5.96	6
Rhode Island	19,992	848	4.24	11
S. Carolina	101,615	270	.27	51
S. Dakota	22,287	425	1.91	33
Tennessee	151,226	5,286	3.50	18
Texas	623,214	8,925	1.43	42
Utah	133,903[9]	4,617	3.45	19
Vermont	17,269[10]	496	2.87	24
Virginia	269,799	4,524	1.68	36
Washington	250,802	9,185	3.66	17
W. Virginia	63,312	2,060	3.25	21
Wisconsin	253,495	7,921	3.12	22
Wyoming	17,696	220	1.24	44
Puerto Rico	96,832	1,699	1.75	35

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.

[2] Includes 2,470 duplication within occupational areas.

[3] Includes 1,233 duplication within occupational areas.

[4] Includes 4,162 duplication within occupational areas.

[5] Includes 6,659 duplication within occupational areas.

[6] Includes 5,390 duplication within occupational areas.

[7] Includes 11,371 duplication within occupational areas.

[8] Includes 4,324 duplication within occupational areas.

[9] Includes 33,029 duplication within occupational areas.

[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Trade and industrial education. Nearly twenty-four percent of the nation's vocational education program is in the area of trade and industrial education. This area probably represents more than 400 different jobs and occupations. Distribution of enrollment among the States is shown in Table 36. Kansas ranks number one with 40.5 percent of enrollment in this area, and Wyoming is number fifty-two with 7.87 percent.

Table 36 - Vocational Education Enrollment in Trade and Industry as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Trade & Industry Enrollment	Total Trade & Industry Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420 [1]	2,368,281	23.56	
Alabama	157,746	41,634	26.39	16
Alaska	20,926	6,473	30.93	8
Arizona	102,806	19,984	19.44	36
Arkansas	110,224	24,156	21.92	31
California	1,221,509	286,128	23.42	23
Colorado	101,521	19,574	19.28	37
Connecticut	127,609	23,562	18.46	40
Delaware	37,323	8,586	23.00	25
Dist. of C.	10,813	2,479	22.93	27
Florida	511,750	89,920	17.57	45
Georgia	292,211 [2]	55,895	19.13	38
Hawaii	40,142	12,612	31.42	6
Idaho	33,146	5,471	16.51	47
Illinois	595,879	202,762	34.03	5
Indiana	154,556	30,197	19.54	35
Iowa	133,442	24,505	18.36	43
Kansas	100,052 [3]	40,545	40.52	1
Kentucky	169,031 [4]	36,625	21.67	32
Louisiana	176,312	27,232	15.45	50
Maine	29,840	11,774	39.46	2
Maryland	166,032	30,504	18.37	42
Massachusetts	163,799	43,216	26.38	17
Michigan	342,985	96,232	28.06	11
Minnesota	234,334	55,209	23.56	22
Mississippi	109,561	24,886	22.71	28
Missouri	162,625	29,945	18.41	41
Montana	32,267	10,050	31.15	7
Nebraska	68,796	18,355	26.68	15
Nevada	27,276 [5]	7,176	26.31	19
New Hampshire	25,310	4,963	19.61	34
New Jersey	310,186	52,147	16.81	46
New Mexico	52,338	9,918	18.95	39
New York	754,489	154,830	20.52	33
N. Carolina	436,016 [6]	152,215	34.91	4
N. Dakota	32,637	5,098	15.62	49
Ohio	412,007	93,537	22.70	29
Oklahoma	118,766 [7]	32,758	27.58	13
Oregon	123,936	28,492	22.99	26
Pennsylvania	331,782 [8]	128,776	38.81	3
Rhode Island	19,992	5,529	27.66	12
S. Carolina	101,615	26,343	25.92	21
S. Dakota	22,287	3,971	17.82	44
Tennessee	151,226	41,025	27.13	14
Texas	623,214	77,127	12.38	51
Utah	133,903 [9]	21,795	16.28	48
Vermont	17,269 [10]	5,340	30.92	9
Virginia	269,799	75,922	28.14	10
Washington	250,802	55,550	22.15	30
W. Virginia	63,312	16,501	26.06	20
Wisconsin	253,495	66,737	26.33	18
Wyoming	17,694	1,392	7.87	52
Puerto Rico	96,832	22,628	23.37	24

[1] Totals shown in this column include students enrolled in programs not identified by occupational areas and enrollment duplications.

[2] Includes 2,470 duplication within occupational areas.

[3] Includes 1,233 duplication within occupational areas.

[4] Includes 4,162 duplication within occupational areas.

[5] Includes 6,659 duplication within occupational areas.

[6] Includes 5,390 duplication within occupational areas.

[7] Includes 11,371 duplication within occupational areas.

[8] Includes 4,324 duplication within occupational areas.

[9] Includes 33,029 duplication within occupational areas.

[10] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Causal Effects and Enrollment Distribution

Distribution of enrollment among the States on the basis of either educational levels (Tables 5-28) or service areas (Tables 29-36) gives rise to speculation to account for the wide variations among the States. It is important to know why one State appears to favor one educational level, or service area, over another, or why some States appear to neglect these areas. A host of causal-type questions occurs from enrollment data for which substantive answers must be found. These answers cannot be gleaned from the data alone. To what extent do demographic factors influence the development of vocational education? Can the development of vocational education be attributed to leadership expressed by the vocational educators, the policy makers, the business and industry leaders? Why is a State in which the economy depends largely upon agriculture so low (or high) in enrollment in vocational agriculture?

Table 36 notes that California enrolls 286,128 persons in its trade and industrial program. This represents twenty-three percent of the total vocational education program in California, which places California twenty-third among all the States. On the other hand, Illinois, which has half the population of California, enrolls 202,762 persons in trade and industrial education -- seventy percent of the California enrollment. What causes this? The answer is not known at present, and it would appear that massive attention should be devoted to such aspects of the study of vocational education.

Comparative Enrollment Data

In order to provide a broader perspective of the Fiscal year 1972, and comparative data with other years, a number of tables have been prepared. These data are presented in four basic areas: (1) cooperative education, (2) educational levels, (3) educational levels from Fiscal year 1965, and (4) service area enrollments from 1961.

Cooperative education enrollment in each of the occupational areas. In agriculture education, cooperative education enrollment constituted 3.50 percent of total enrollment. The highest percent of total agricultural enrollment in cooperative education was 25.76 percent (Nebraska). Cooperative education enrollment was unreported in four States, the District of Columbia, and Puerto Rico.

In distributive education, cooperative education enrollment constituted 24.20 percent of total enrollment. In two cases the highest percent was 100 percent distributive education participation in cooperative education: New Mexico and Wyoming. The lowest percent of total distributive education enrollment in cooperative education was 2.15 percent (New Hampshire).

In health occupations education, cooperative education enrollment constituted 5.39 percent of total enrollment. The highest percent of total health occupations enrollment in cooperative education was 29.17 percent (Wyoming).

In consumer and homemaking education, cooperative education enrollment constituted 0.10 percent of total enrollment. The highest percent of total consumer and homemaking enrollment in cooperative education was 1.8 percent (Illinois). Because most States did not have cooperative education enrollment in consumer and homemaking education, these data apply only to the fourteen States that had such enrollment.

In occupational home economics education, cooperative education enrollment constituted 6.17 percent of total enrollment. The highest percent of total occupational home economics enrollment in cooperative education was 66.48 percent (Texas). In five States and the District of Columbia cooperative occupational home economics was not indicated.

In office occupations education, cooperative education enrollment constituted 4.13 percent of total enrollment. The highest percent of total office occupations enrollment in cooperative education was 31.8 percent (Alaska). In one State (Connecticut) cooperative office occupations enrollment was not reported.

In technical education, cooperative education enrollment constituted 1.01 percent of total enrollment. The highest percent of total technical education enrollment in cooperative education was 28.18 percent (Wyoming). In twenty-six States, the District of Columbia and Puerto Rico cooperative technical enrollment was not reported.

In trade and industrial education, cooperative education enrollment constituted 3.96 percent of total enrollment. The highest percent of total trade and industrial education enrollment in cooperative education was 14.1 percent (Ohio). The lowest percent of total trade and industrial education enrollment in cooperative education was 0.18 percent (Washington).

Table 37 depicts by States the total enrollment by service, total cooperative education enrollment by service, and the percentage of the total enrollment served by cooperative programs.

Table 37 - Cooperative Education Enrollment as a Percent of Total Enrollment in Each of the Occupational Areas, 1971-72

States	Agriculture			Distributive Education			Health Occupations			Consumer & Homemaking		
	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment
U.S. TOTAL	864,429	30,224	3.50	634,115	153,427	24.20	334,478	18,022	5.39	2,581,851	2,833	.10
Alabama	43,392	2,092	4.82	8,796	2,740	31.15	2,876	637	22.15	38,047	0	0.00
Alaska	51	0	0.00	2,414	2,379	98.55	402	0	0.00	2,275	0	0.00
Arizona	4,262	312	7.32	12,603	1,386	11.00	8,062	159	1.97	23,742	0	0.00
Arkansas	22,785	113	.50	5,436	1,331	24.48	3,018	451	14.94	38,259	0	0.00
California	53,900	1,348	2.50	70,255	4,511	6.42	43,011	1,092	2.54	198,558	806	.41
Colorado	4,243	106	2.50	11,529	3,665	31.79	3,046	0	0.00	28,620	0	0.00
Connecticut	2,059	0	0.00	4,256	3,734	87.73	2,728	36	1.32	27,438	0	0.00
Delaware	1,216	144	11.84	2,276	568	24.96	650	87	13.38	6,374	32	.50
Dist. of C.	178	0	0.00	860	80	9.30	729	0	0.00	2,899	0	0.00
Florida	26,602	1,422	5.35	50,031	10,806	21.60	19,803	1,210	6.11	151,271	546	.36
Georgia	37,745	1,263	3.35	12,864	4,446	34.56	6,514	2	.03	70,683	37	.05
Hawaii	2,348	52	2.21	1,680	402	23.93	461	2	.43	10,681	0	0.00
Idaho	5,336	92	1.72	1,271	817	64.28	1,548	0	0.00	12,505	0	0.00
Illinois	30,335	778	2.56	23,808	5,001	21.01	17,682	1,198	6.78	28.572	513	1.80
Indiana	24,353	200	.82	6,704	1,862	27.77	4,136	412	9.96	54,874	0	0.00
Iowa	29,813	1,821	6.11	4,336	2,220	51.20	11,430	1,580	13.82	47,720	0	0.00
Kansas	10,142	13	.13	6,840	1,101	16.10	1,390	54	3.88	23,426	1	0.00
Kentucky	20,190	1,358	6.73	11,943	1,091	9.14	3,325	6	.18	51,131	0	0.00
Louisiana	19,363	108	.56	10,153	3,885	38.26	4,547	0	0.00	54,550	0	0.00
Maine	658	20	3.04	696	177	25.43	529	93	17.58	2,793	0	0.00
Maryland	3,519	10	.28	4,774	2,172	45.50	3,808	8	.21	46,507	21	.05
Massachusetts	2,149	88	4.09	6,628	964	14.54	4,382	127	2.90	16,055	41	.26
Michigan	13,897	251	1.81	38,872	9,178	23.61	14,598	1,852	12.69	74,871	169	.23
Minnesota	34,180	690	2.02	15,813	3,740	23.65	4,468	271	6.07	73,152	0	0.00
Mississippi	21,506	2,476	11.51	6,471	1,083	16.74	2,573	130	5.05	31,061	68	.22
Missouri	17,699	84	.47	13,482	3,538	26.24	7,394	254	3.44	66,154	0	0.00
Montana	3,689	63	1.71	1,667	420	25.19	595	0	0.00	6,926	0	0.00
Nebraska	8,223	2,118	25,76	4,833	1,168	24.17	4,842	62	1.28	21,825	15	.07
Nevada	1,402	59	4.21	958	552	57.62	1,840	102	5.54	3,742	0	0.00
New Hampshire	1,316	34	2.58	418	9	2.15	1,061	15	1.41	8.630	0	0.00
New Jersey	2,352	131	5.57	10,883	1,758	16.15	7,889	71	.90	94,498	0	0.00
New Mexico	4,149	0	0.00	1,843	1,861	100.98	1,538	11	.72	17,026	2	.01
New York	14,893	238	1.60	28,527	5,303	18.59	32,851	577	1.76	211,354	0	0.00
N. Carolina	33,502	950	2.84	18,695	7,488	40.05	28,389	906	3.19	119,177	0	0.00
N. Dakota	5,632	629	11.17	2,173	515	23.70	848	196	23.11	11,801	0	0.00
Ohio	34,254	1,859	5.43	44,024	18,459	41.93	8,771	767	8.74	136,454	307	.22
Oklahoma	23,768	1,620	6.82	5,921	2,701	45.62	4,628	185	4.00	30,403	0	0.00
Oregon	5,048	416	8.24	5,775	2,145	37.14	4,541	160	3.52	40,001	0	0.00
Pennsylvania	14,052	536	3.81	12,055	2,645	21.94	12,865	119	.92	55,454	0	0.00
Rhode Island	1,231	53	4.31	888	817	92.00	999	0	0.00	9,099	0	0.00
S. Carolina	21,087	0	0.00	4,919	2,951	59.99	1,153	49	4.25	30,238	0	0.00
S. Dakota	4,612	393	8.52	1,465	1,293	88.26	470	24	5.11	9,138	0	0.00
Tennessee	20,901	66	.32	7,910	2,147	27.14	3,697	0	0.00	50,289	48	.10
Texas	147,978	3,179	2.15	40,731	16,837	41.34	16,894	3,699	21.90	281,303	226	.08
Utah	5,663	129	2.28	8,478	1,933	22.80	1,842	36	1.95	35,362	0	0.00
Vermont	1,389	79	5.69	751	119	15.85	436	38	8.72	5,607	0	0.00
Virginia	21,144	2,278	10.77	52,472	1,243	2.37	4,974	306	6.15	44,975	0	0.00
Washington	15,636	348	2.23	16,585	2,773	16.72	6,957	540	7.76	70,561	1	0.00
W. Virginia	4,772	1	.02	1,165	855	73.39	1,662	5	.30	21,596	0	0.00
Wisconsin	28,964	169	.58	14,295	1,389	9.72	9,577	29	.30	49,724	0	0.00
Wyoming	1,933	37	1.91	839	839	100.00	192	56	29.17	4,271	0	0.00
Puerto Rico	4,918	0	0.00	11,054	2,330	21.08	1,857	408	21.97	30,179	0	0.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 37 - Cont'd

States	Occupational Home Economics			Office			Technical Education			Trade & Industry		
	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment	Total Enrollment	Total Coop Enrollment	Percent of Total Coop Enrollment
U.S. TOTAL	263,403	16,248	6.17	2,341,366	96,611	4.13	335,661	6,416	1.91	2,368,281	93,886	3.96
Alabama	4,992	117	2.34	16,445	1,782	10.84	847	0	0.00	41,634	2,310	5.55
Alaska	438	18	4.11	7,126	2,266	31.80	1,747	0	0.00	6,473	81	1.25
Arizona	4,987	403	8.08	20,623	1,881	9.12	7,134	672	9.42	19,984	1,385	6.93
Arkansas	989	180	18.20	11,762	551	4.68	121	0	0.00	24,156	545	2.26
California	31,973	950	2.97	381,413	6,164	1.61	54,552	1,686	3.09	286,128	7,402	2.59
Colorado	3,731	365	9.78	20,480	325	1.59	4,203	0	0.00	19,574	1,204	6.15
Connecticut	752	0	0.00	50,790	0	0.00	10,208	0	0.00	23,562	2,208	9.37
Delaware	1,231	31	2.52	12,622	537	4.25	781	13	1.66	8,586	435	5.07
Dist. of C.	309	0	0.00	842	32	3.80	109	0	0.00	2,479	208	8.39
Florida	22,953	643	2.80	100,086	4,433	4.43	28,294	240	.85	89,920	3,143	3.50
Georgia	11,150	379	3.40	84,095	3,521	4.19	7,762	18	.23	55,895	3,074	5.50
Hawaii	407	81	19.90	10,664	479	4.49	628	0	0.00	12,612	264	2.09
Idaho	348	7	2.01	5,583	418	7.49	597	0	0.00	5,471	97	1.77
Illinois	46,169	1,105	2.39	230,303	5,823	2.53	13,248	43	.32	202,762	3,666	1.81
Indiana	2,959	280	9.46	27,516	5,261	19.12	1,804	0	0.00	30,197	2,639	8.74
Iowa	2,240	360	16.07	11,945	1,937	16.22	1,453	76	5.23	24,505	2,896	11.82
Kansas	1,947	14	.72	12,092	1,116	9.23	866	0	0.00	40,545	714	1.76
Kentucky	2,097	0	0.00	23,219	1,032	4.44	1,252	0	0.00	36,625	722	1.97
Louisiana	1,955	37	1.89	54,915	1,362	2.48	3,597	0	0.00	27,232	54	.20
Maine	219	12	5.48	12,447	138	1.11	462	0	0.00	11.774	524	4.45
Maryland	3,226	24	.74	59,350	801	1.35	9,176	1	.01	30,504	808	2.65
Massachusetts	3,088	30	.97	79,962	402	.50	4,686	19	.41	43,216	1,916	4.43
Michigan	13,529	761	5.62	64,834	7,839	12.09	17,484	384	2.20	96,232	5,837	6.07
Minnesota	12,771	1,836	14.38	30,691	1,838	5.99	8,050	0	0.00	55,209	1,697	3.07
Mississippi	1,740	80	4.60	7,851	520	6.62	8,175	1	.01	24,886	515	2.07
Missouri	2,549	0	0.00	21,069	1,049	4.98	4,333	0	0.00	29,945	1,717	5.73
Montana	168	19	11.31	7,870	359	4.56	1,302	13	1.00	10,050	214	2.13
Nebraska	418	6	1.44	8,678	415	4.78	990	0	0.00	18,355	373	2.03
Nevada	543	52	9.58	7,150	341	4.77	3,091	117	3.79	7,176	286	3.99
New Hampshire	336	41	12.20	7,046	295	4.19	711	0	0.00	4,963	106	2.14
New Jersey	6,667	40	.60	113,753	1,868	1.64	11,884	113	.95	52,147	3,188	6.11
New Mexico	1,248	2	.16	15,920	1,050	6.60	696	0	0.00	9,918	393	3.96
New York	6,659	338	5.08	273,849	8,414	3.07	31,526	841	2.67	154,830	2,813	1.82
N. Carolina	18,103	545	3.01	32,718	3,341	10.21	11,751	286	2.43	152,215	7,027	4.62
N. Dakota	587	33	5.62	5,215	1,141	21.88	477	0	0.00	5,098	137	2.69
Ohio	7,456	1,233	16.54	52,798	4,354	8.25	6,812	974	14.30	93,537	13,189	14.10
Oklahoma	2,361	156	6.61	11,087	2,742	24.73	4,943	20	.40	32,758	1,593	4.86
Oregon	2,624	247	9.41	26,056	1,175	4.51	3,660	113	3.09	28,492	809	2.84
Pennsylvania	7,867	419	5.33	77,668	2,097	2.70	19,773	484	2.45	128,776	2,867	2.23
Rhode Island	42	0	0.00	810	60	7.41	848	18	2.12	5,529	275	4.97
S. Carolina	1,193	148	12.41	10,983	254	2.31	270	0	0.00	26,343	878	3.33
S. Dakota	81	0	0.00	1,425	75	5.26	425	0	0.00	3,971	250	6.30
Tennessee	2,279	36	1.58	19,626	323	1.65	5,286	0	0.00	41,025	972	2.37
Texas	6,312	4,196	66.48	41,866	8,192	19.57	8,925	118	1.32	77,127	7,259	9.41
Utah	2,233	253	11.33	28,862	645	2.23	4,617	0	0.00	21,795	582	2.67
Vermont	348	44	12.64	2,242	200	8.92	496	0	0.00	5,340	287	5.37
Virginia	1,667	9	.54	60,647	2,603	4.29	4,524	0	0.00	75,922	2,869	3.78
Washington	6,570	230	3.50	61,837	1,235	2.00	9,185	104	1.13	55,550	98	.18
W. Virginia	1,161	10	.86	14,395	274	1.90	2,060	0	0.00	16,501	79	.48
Wisconsin	2,703	342	12.65	73,574	1,255	1.71	7,921	0	0.00	65,737	699	1.05
Wyoming	115	44	38.26	6,282	403	6.42	220	62	28.18	1,392	195	14.01
Puerto Rico	4,213	92	2.18	20,284	1,993	9.83	1,699	0	0.00	22,628	389	1.72

Number of programs at the secondary, post-secondary and adult levels. The total number of vocational education programs in the thirty-eight States, District of Columbia and Puerto Rico for which data were available was 77,376. Of this total 46,105, or 59.59 percent, were secondary education programs. The highest percent of secondary programs, as a percent of total vocational education programs, was 97.42 percent (Massachusetts). The lowest was 32.61 percent (Georgia).

Of the total number of vocational education programs 9,417, or 12.17 percent, were post-secondary programs. The highest percent of post-secondary programs, as a percent of total vocational education programs, was 35.89 percent (Wisconsin). The lowest was 3.76 percent (Rhode Island).

Of the total number of vocational education programs 21,783, or 28.15 percent, were adult programs. The highest percent of adult programs, as a percent of total vocational education programs, was 57.99 percent (Rhode Island). The lowest was 2.58 percent (Massachusetts).

It should be noted that the definition of "program" is not consistent. Our use of it is based on the term as defined by each individual State.

Table 38 - Percent of Vocational Education Programs at Secondary, Post-Secondary, and Adult Levels in Thirty-eight States, the District of Columbia and Puerto Rico for 1971-72

States	Total Number of Vocational Education Programs	SECONDARY		POST-SECONDARY		ADULT	
		Total Secondary Vocational Education Programs	Percent of Total Vocational Education Programs	Total Post-Secondary Vocational Education Programs	Percent of Total Vocational Education Programs	Total Adult Vocational Education Programs	Percent of Total Vocational Education Programs
TOTAL	77,376	46,105	59.59	9,417 *	12.17	21,783	28.15
Alaska	261	190	72.80	NA	NA	NA	NA
Arizona	1,865	1,296	69.49	422	22.63	147	7.88
Arkansas	876	643	73.40	198	22.60	35	4.00
California	345	115	33.33	115	33.33	115	33.33
Colorado	2,152	718	33.36	349	16.22	1,085	50.42
Connecticut	934	667	71.41	267	28.59	NA	NA
Delaware	110	64	58.18	20	18.18	26	23.64
Dist. of C.	193	98	50.78	25	12.95	70	36.27
Georgia	276	90	32.61	81	29.35	105	38.04
Hawaii	550	369	67.09	106	19.27	75	13.64
Idaho	842	348	41.33	98	11.64	396	47.03
Illinois	9,599	6,829	71.14	821	8.55	1,949	20.30
Iowa	4,336	2,346	54.11	343	7.91	1,647	37.98
Kansas	1,571	587	37.36	184	11.71	800	50.92
Louisiana	3,263	2,198	67.36	368	11.28	697	21.36
Maine	776	322	41.49	41	5.28	413	53.22
Maryland	2,768	1,659	59.93	195	7.04	914	33.02
Massachusetts	1,973	1,922	97.42	NA	NA	51	2.58
Minnesota	2,748	1,320	48.03	751	27.33	677	24.64
Mississippi	3,878	1,455	37.52	310	7.99	2,113	54.49
Montana	278	204	73.38	25	8.99	49	17.63
Nebraska	813	648	79.70	165	20.30	NA	NA
Nevada	538	371	68.96	71	13.20	96	17.84
New Hampshire	330	241	73.03	30	9.09	59	17.88
New Mexico	713	478	67.04	76	10.66	159	22.30
N. Carolina	2,992	2,666	89.10	199	6.65	127	4.24
N. Dakota	502	323	64.34	70	13.94	109	21.71
Oklahoma	2,806	1,339	47.72	126	4.49	1,341	47.79
Oregon	1,544	708	45.85	354	22.93	482	31.22
Pennsylvania	6,635	4,261	64.22	662	9.98	1,712	25.80
Rhode Island	319	122	38.24	12	3.76	185	57.99
S. Carolina	3,048	1,702	55.84	128	4.20	1,218	39.96
S. Dakota	561	256	45.63	64	11.41	241	42.96
Tennessee	1,888	976	51.69	323	17.11	589	31.20
Utah	2,050	1,157	56.44	173	8.44	720	35.12
Virginia	4,666	2,475	53.04	282	6.04	1,909	40.91
W. Virginia	1,585	650	41.01	210	13.25	725	45.74
Wisconsin	2,073	1,329	64.11	744	35.89	NA	NA
Wyoming	630	509	80.79	56	8.89	65	10.32
Puerto Rico	4,089	2,454	60.01	953	23.31	682	16.68

Source: Research collected from various States.

Enrollments in vocational education by educational level, Fiscal years 1965 - 1972. Table 39 and Graphs 1 through 6 indicate summary enrollment data at three educational levels: secondary, post-secondary, and adult. Enrollment data by educational level have been available beginning with Fiscal year 1965.

From Table 39 trends in enrollment are clearly delineated. In seven years the total enrollment has increased by eighty-four percent. Such expansion is directly related to the influence of the Vocational Education Act of 1963 and the Amendments of 1968. The foresight of Congress in facilitating the restructuring of vocational education obviously has paid back a high rate of return in bringing vocational education to millions more people.

Graphs 1 through 6 show graphically how the total enrollment in each of the educational levels has changed and how these data are related to the total enrollment by years.

Table 39 - Enrollments in Vocational Education by Level: Secondary, Post-Secondary, Adult -- Fiscal Years 1965 - 1972

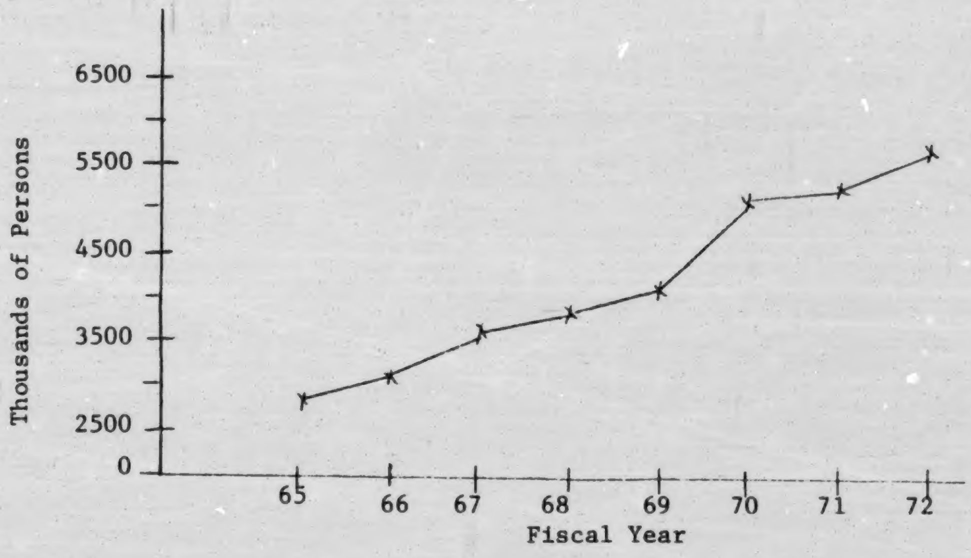
Fiscal Year	Total Enroll.	Sec. Enroll.	Percent	P-Sec. Enroll.	Percent	Adult Enroll.	Percent	Special Needs Enroll.	Percent
1965	5,430,611	2,819,250	51.9	207,201	3.8	2,387,522	43.8	25,638	0.5
1966	6,070,059	3,048,248	50.2	442,906	7.3	2,530,712	41.7	49,002	1.7
1967	7,047,501	3,532,823	50.1	499,906	7.1	2,941,109	41.7	73,663	2.4
1968	7,533,366	3,842,896	51.0	592,970	7.9	2,987,070	39.6	111,000	2.9
1969	7,979,366	4,079,395	51.1	706,085	8.8	3,050,466	38.2	143,420	3.6
1970	8,793,960	5,114,451	58.2	1,013,426	11.5	2,666,083	30.3	(805,384)[1]	10.5
1971	9,139,304	5,151,058	56.4	1,140,250	12.5	2,857,996	31.3		
1972	9,984,416	5,617,334	56.3	1,303,052	13.1	3,064,030	30.7		

[1] Parenthesis indicate number has been included in grade level totals for 1970.

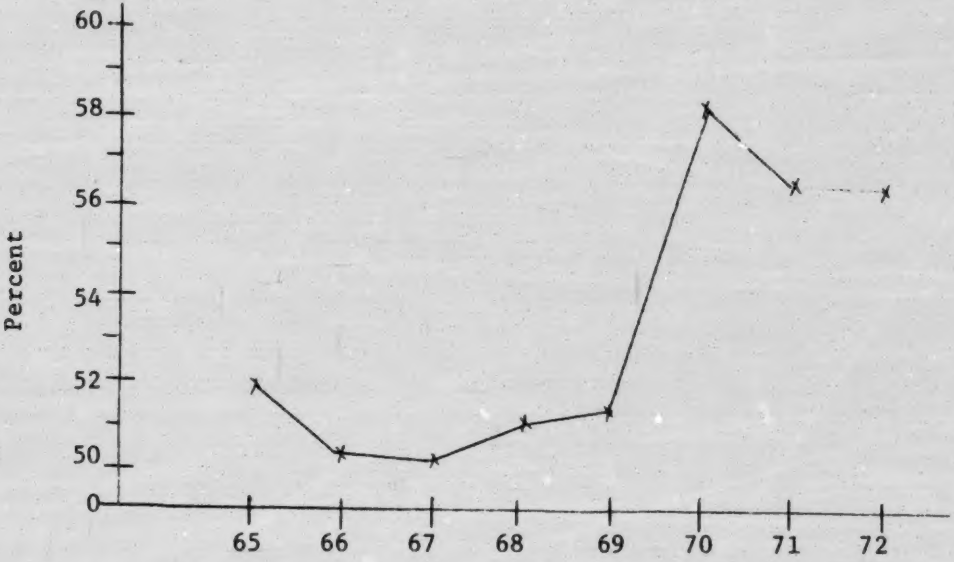
Source: Vocational and Technical Education, Annual Reports, Fiscal Years 1965-70.

U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971 & 1972.

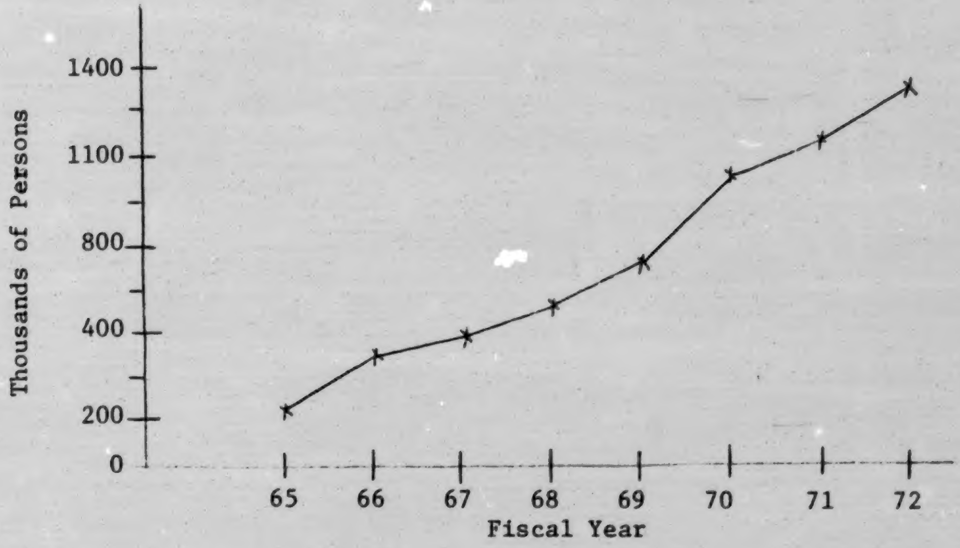
Graph 1 - Numbers of Students Enrolled in Secondary Vocational Education, FY 1965 to FY 1972



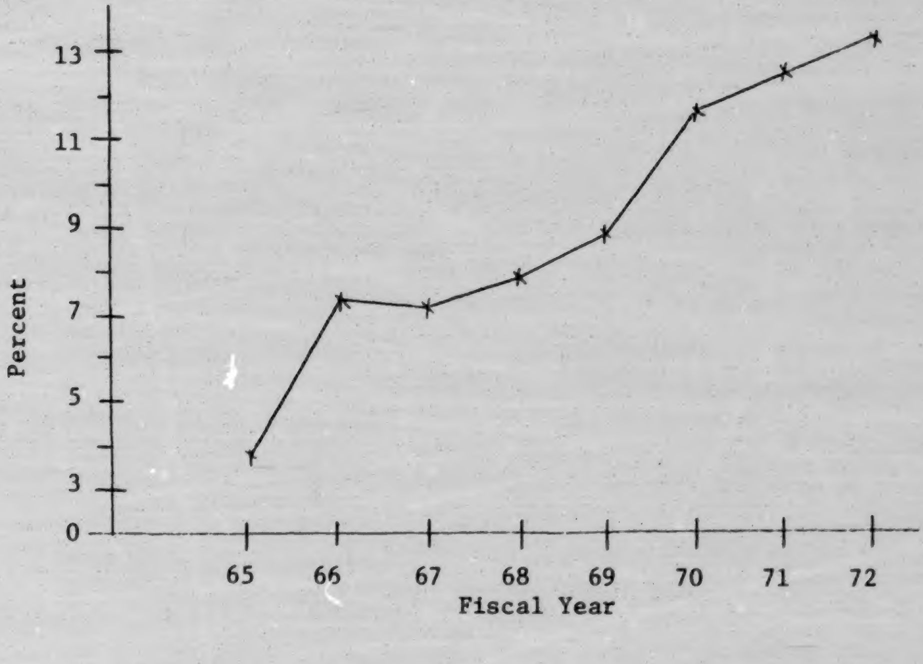
Graph 2 - Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment



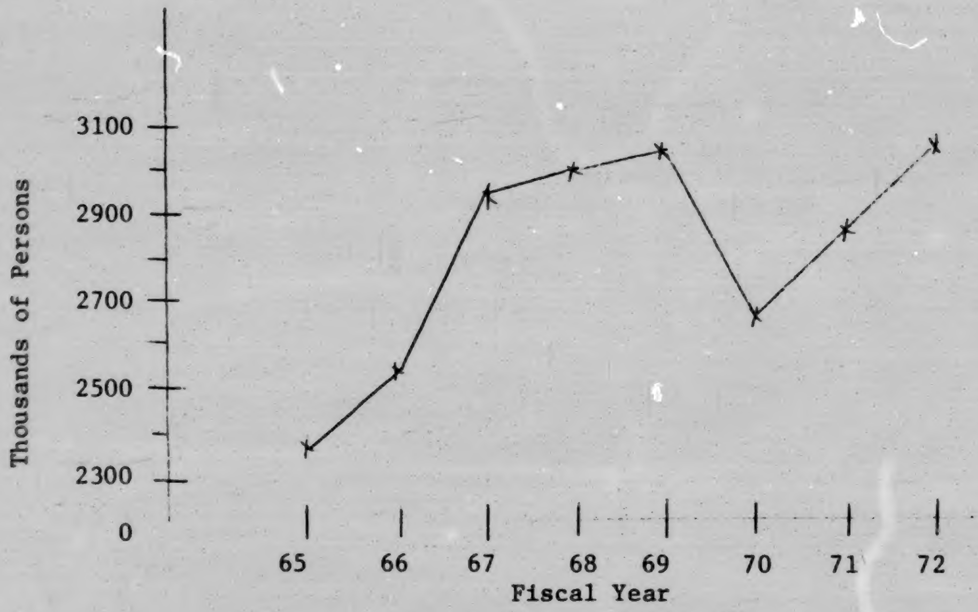
Graph 3 - Numbers of Students Enrolled in Post-Secondary Vocational Education, FY 1965 to FY 1972



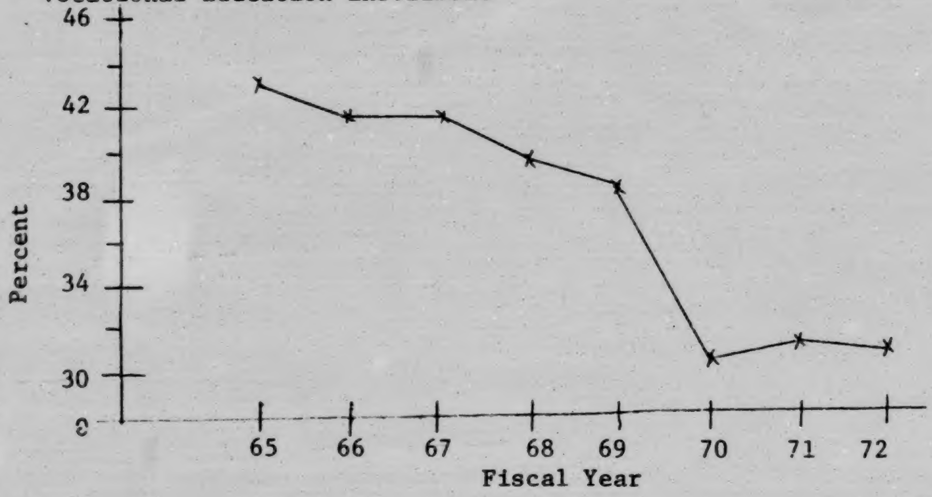
Graph 4 - Post-Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment



Graph 5 - Numbers of Students Enrolled in Adult Vocational Education, FY 1965 to FY 1972



Graph 6 - Adult Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment



Enrollment by occupational category, Fiscal years 1961-1972. Table 40 shows enrollment data by occupational category for the years beginning with 1960-61. From these data the growth patterns for each of the occupational categories can be seen clearly.

Graph 7 is a composite graphical presentation of all the occupational areas indicating how these areas have changed in percentage of the total vocational education. Graphs 8 through 23 provide the enrollment information for each of the occupational areas.

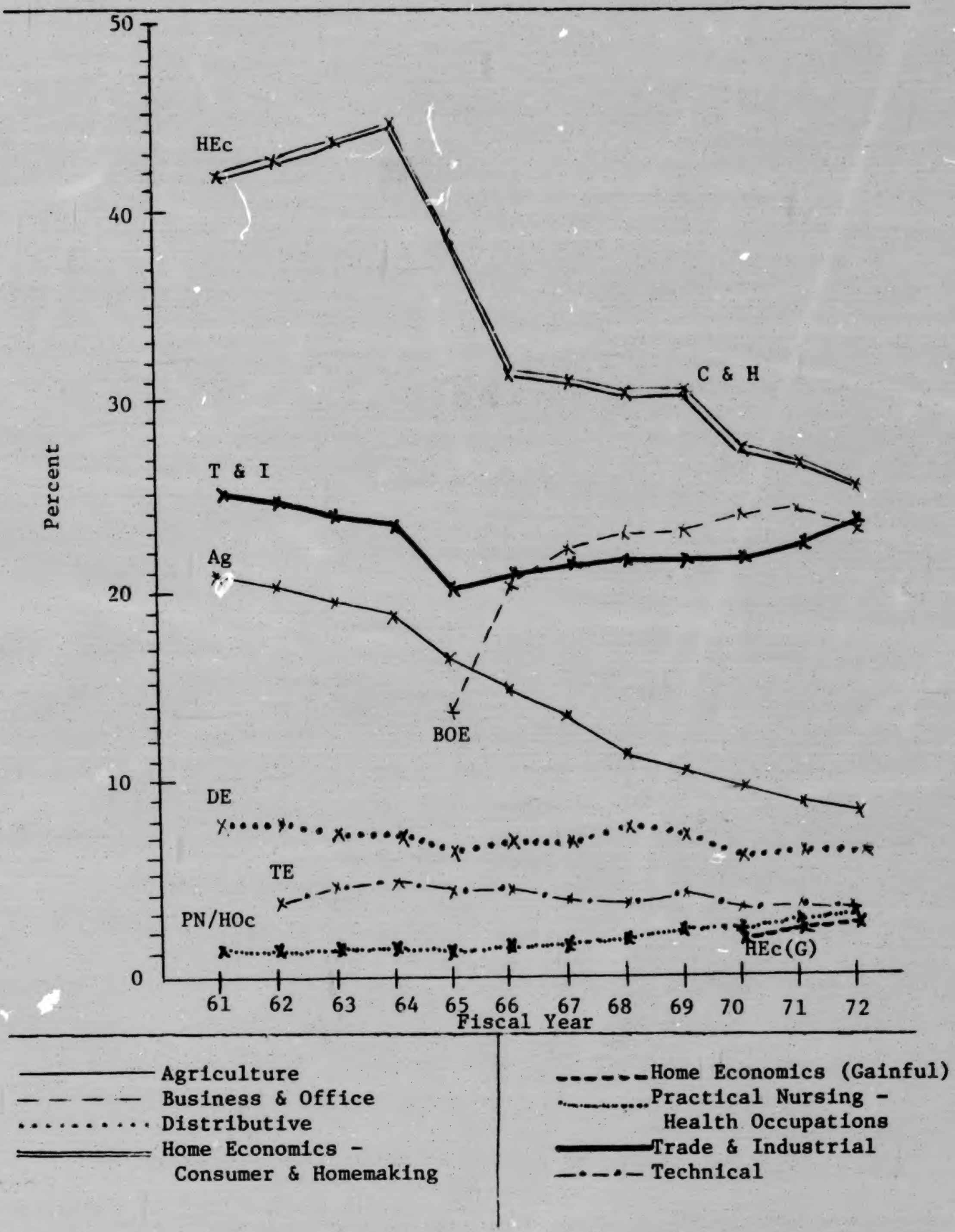
Table 40 - Enrollment in Vocational Education by Occupational Areas, FY 1961 - FY 1972

Fiscal Year	Total Enroll.	Agric. Enroll.	Per-cent	Dist. Ed. Enroll.	Per-cent	Pr. Nrs. or Health Enroll.	Per-cent	Home Ec. Enroll.			Per-cent	Office Enroll.	Per-cent	Tech. Enroll.	Per-cent	T & I Enroll.	Per-cent	Other Enroll.	Per-cent
1961	3,855,564	805,322	20.9	306,083	7.9	47,264	1.2	1,610,334			41.8			122,952	3.2	963,609	25.0		
1962	4,072,677	822,664	20.2	321,065	7.9	48,985	1.2	1,725,660			42.4			148,920	3.7	1,005,383	24.7		
1963	4,217,198	827,827	19.6	309,593	7.3	53,957	1.3	1,839,450			43.6			184,595	4.4	1,001,776	23.8		
1964	4,566,390	860,605	18.8	334,126	7.3	59,006	1.3	2,022,138			44.3			221,241	4.8	1,069,274	23.4		
1965	5,430,611	887,529	16.3	333,342	6.1	66,662	1.2	2,098,520			38.6	730,904	13.5	225,373	4.2	1,087,807	20.0		
1966	6,070,059	907,354	14.9	420,426	6.9	83,677	1.4	1,897,670			31.3	1,238,043	20.4	253,838	4.2	1,269,051	20.9		
1967	7,047,501	935,170	13.3	481,034	6.8	115,109	1.6	2,185,992			31.0	1,572,335	22.3	266,054	3.8	1,490,807	21.2		
1968	7,533,936	851,158	11.3	574,785	7.6	140,987	1.9	2,283,338			30.3	1,735,997	23.0	269,832	3.6	1,628,542	21.6	49,297	.7
1969	7,979,366	850,705	10.7	563,431	7.1	175,101	2.2	2,449,052			30.7	1,835,124	23.0	315,311	4.0	1,720,859	21.6	69,783	.9
								Consumer & Hmkg.	Per-cent	Occupational	Per-cent								
1970	8,793,960	852,983	9.7	592,365	6.0	198,044	2.3	2,419,216	27.5	151,194	1.7	2,111,160	24.0	271,730	3.1	1,906,133	21.7	354,135	4.0
1971	9,160,844	819,880	8.9	574,551	6.3	268,963	2.9	2,450,681	26.8	192,152	2.1	2,220,499	24.2	312,944	3.4	2,052,750	22.4	268,424	2.9
1972	10,053,420	864,429	8.6	634,115	6.3	334,478	3.3	2,581,851	25.7	266,333	2.6	2,341,366	23.3	335,661	3.3	2,368,281	23.6	326,906	3.3

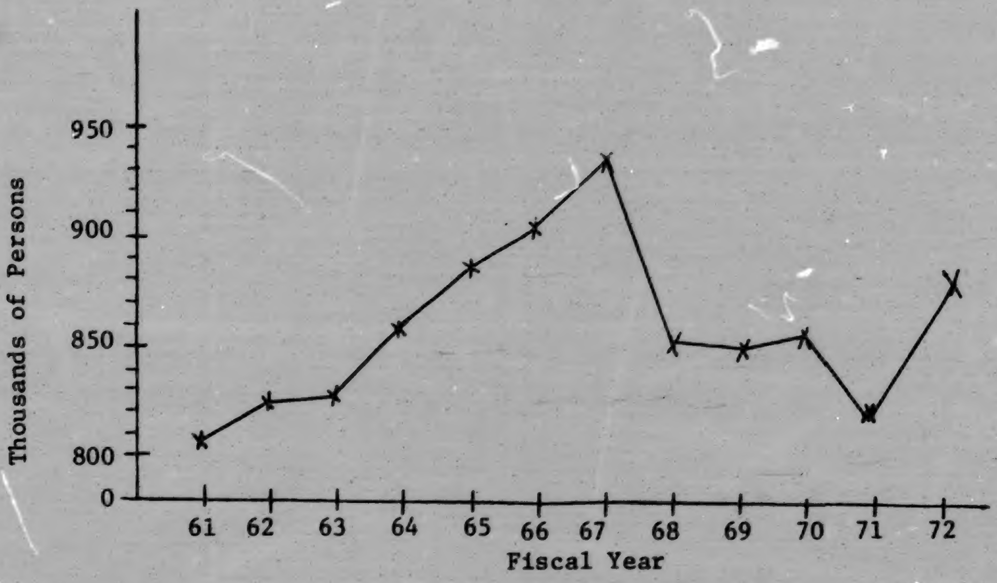
Source: Vocational and Technical Education, Annual Reports, Fiscal Years 1961-70.

U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C.; FY 1971 & 1972.

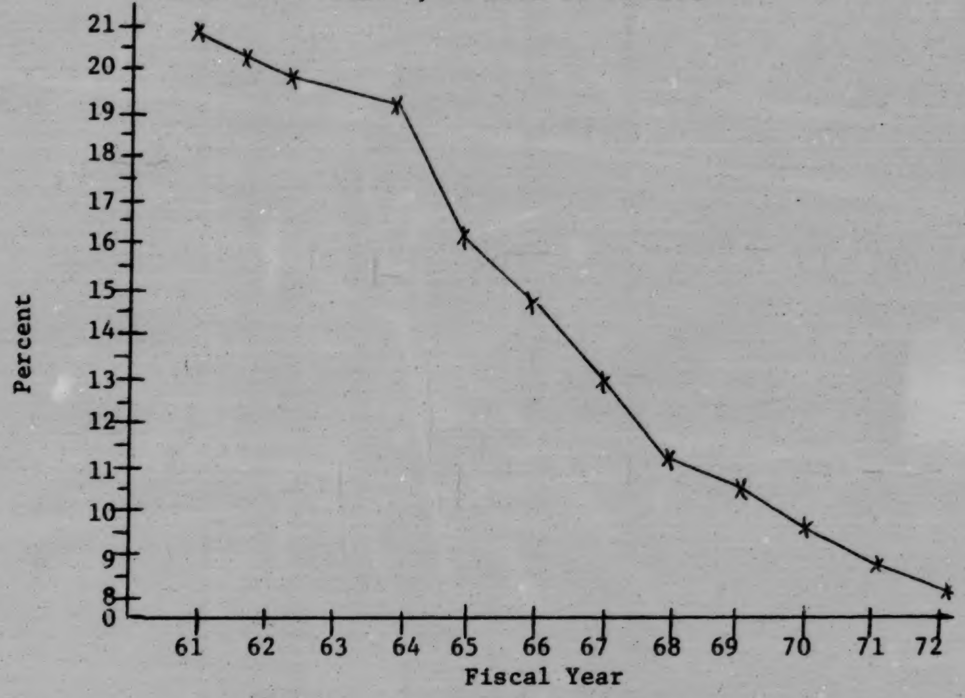
Graph 7 - Percentages to Which the Enrollment in Each Occupational Area Comprises the Total Enrollment in Vocational Education, 1961-72



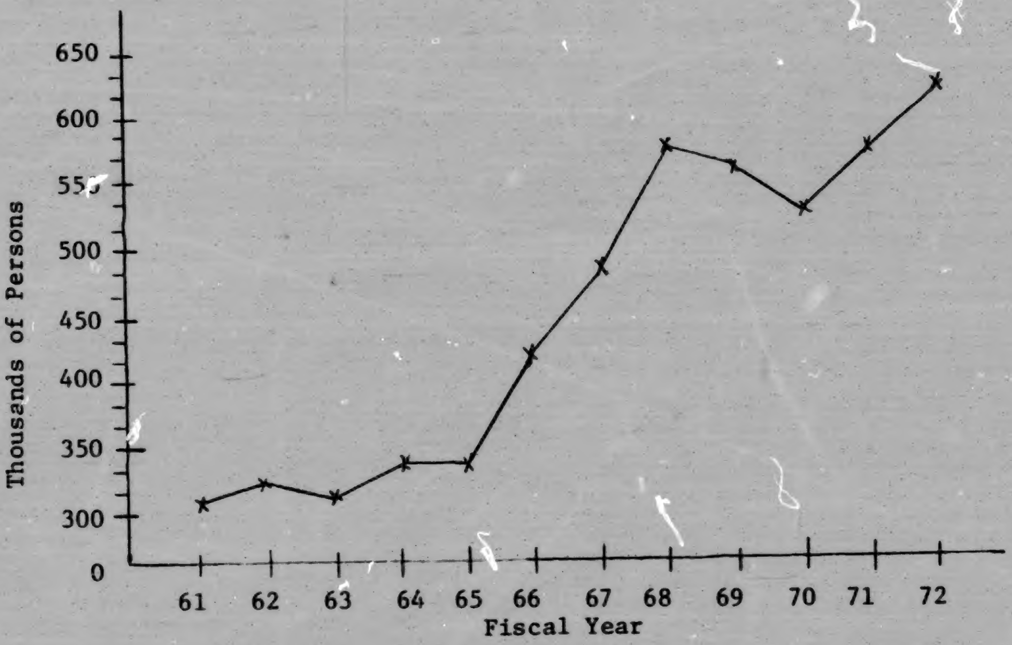
Graph 8 - Students Enrolled in Agricultural Education, FY 1961 to FY 1972



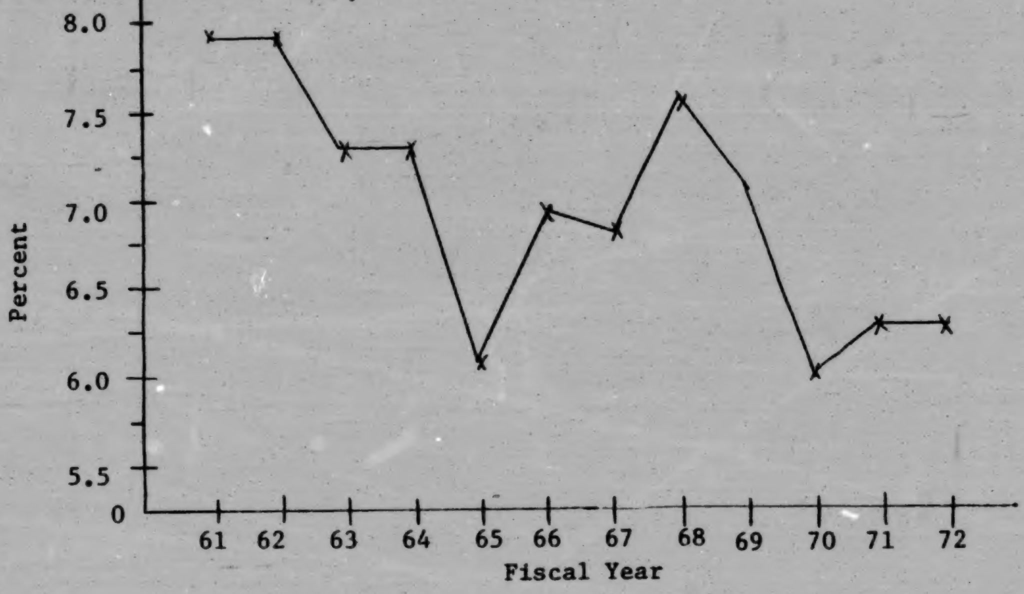
Graph 9 - Agriculture Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



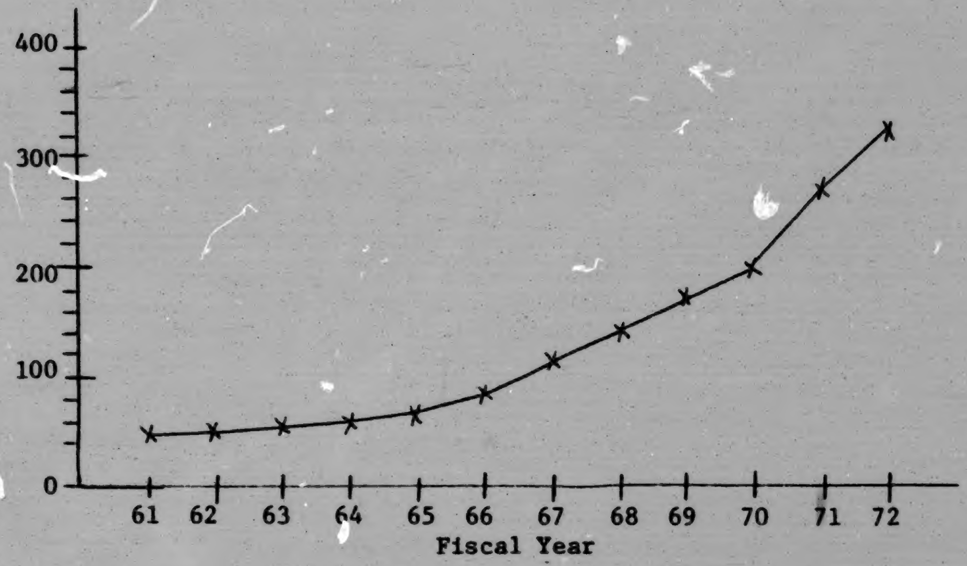
Graph 10 - Enrollment in Distributive Education, FY 1961 to FY 1972



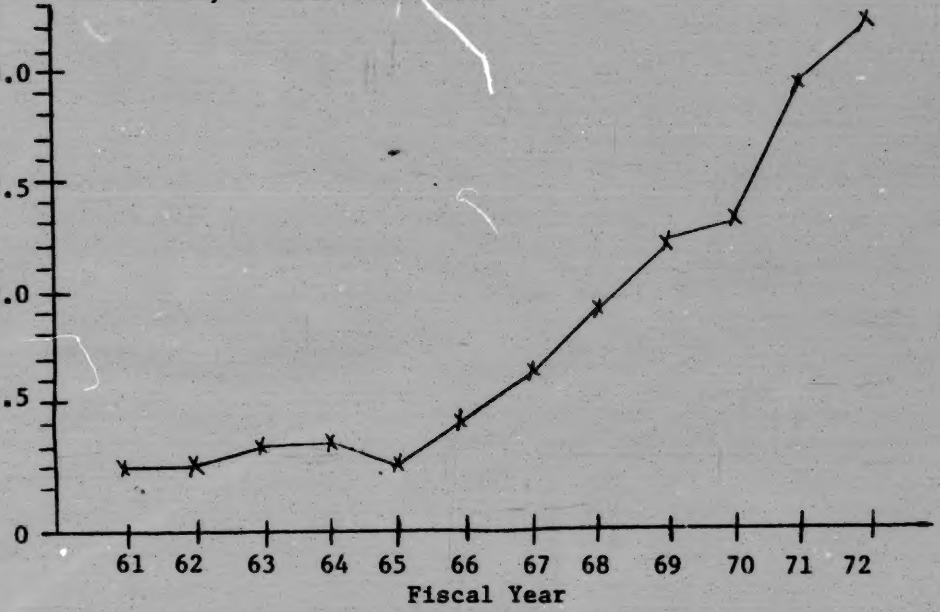
Graph 11 - Distributive Education Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



Graph 12 - Enrollment in Health Occupations Education FY 1961 to FY 1972[1]



Graph 13 - Health Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



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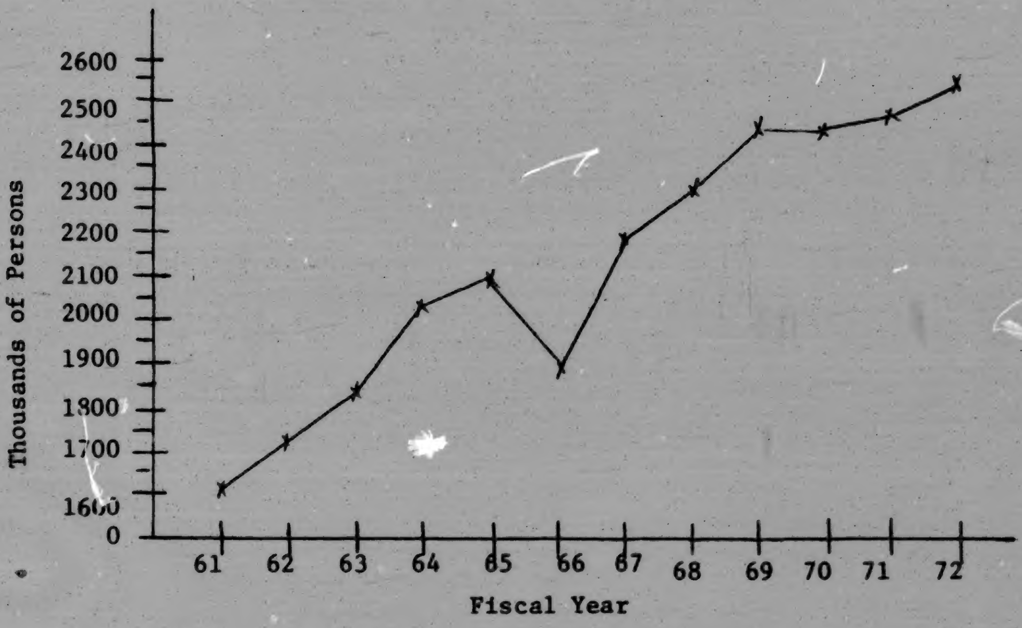
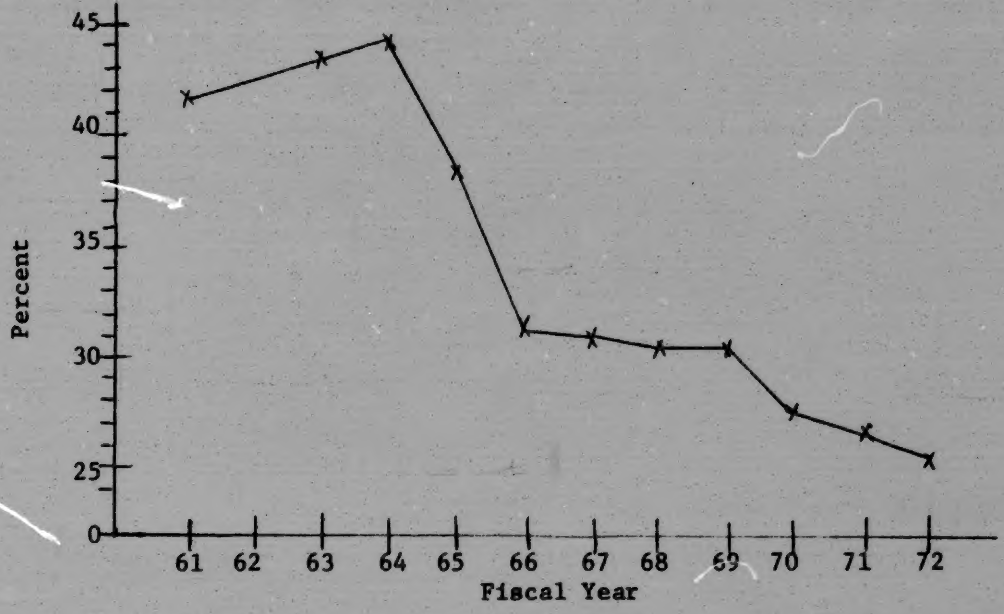
[1] In FY 1961 - 1963, Health Occupations was called "Practical Nurse Education".

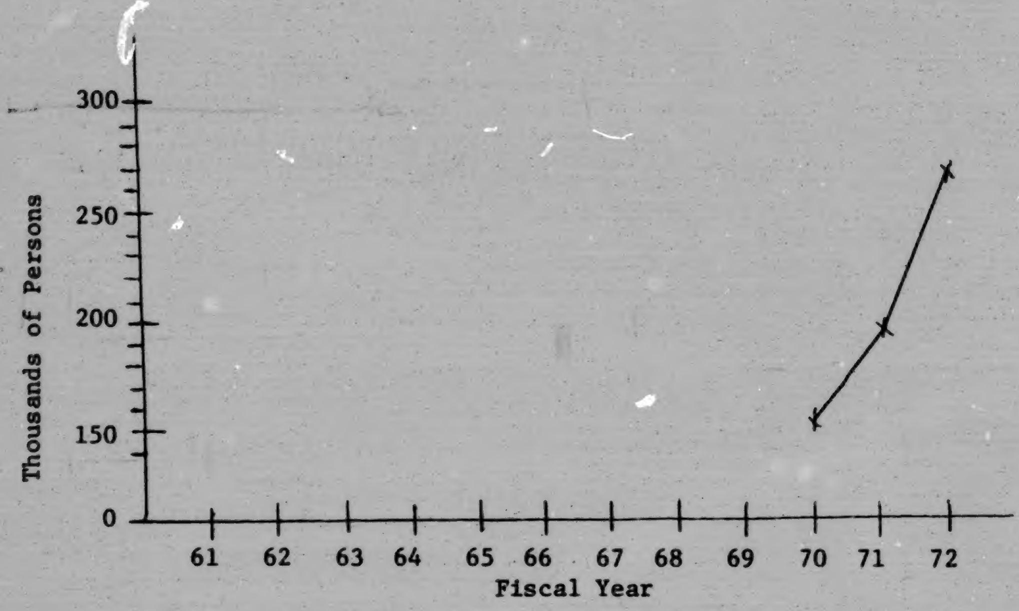
Graph 14 - Enrollment in Consumer & Homemaking Education, FY 1961 to FY 1972



Graph 15 - Consumer & Homemaking Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



Graph 16 - Enrollment in Occupational Home Economics Education, FY 1970 to FY 1972[1]



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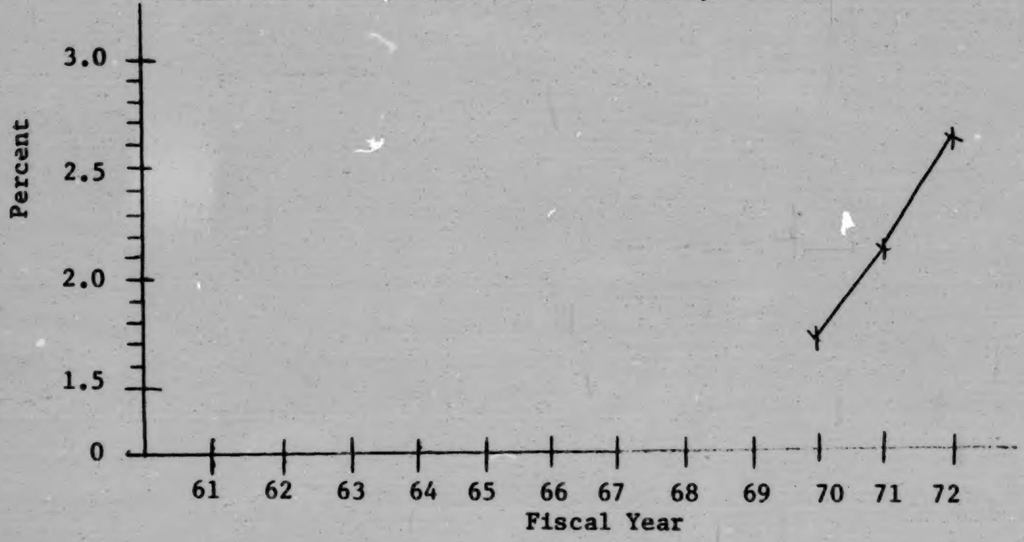
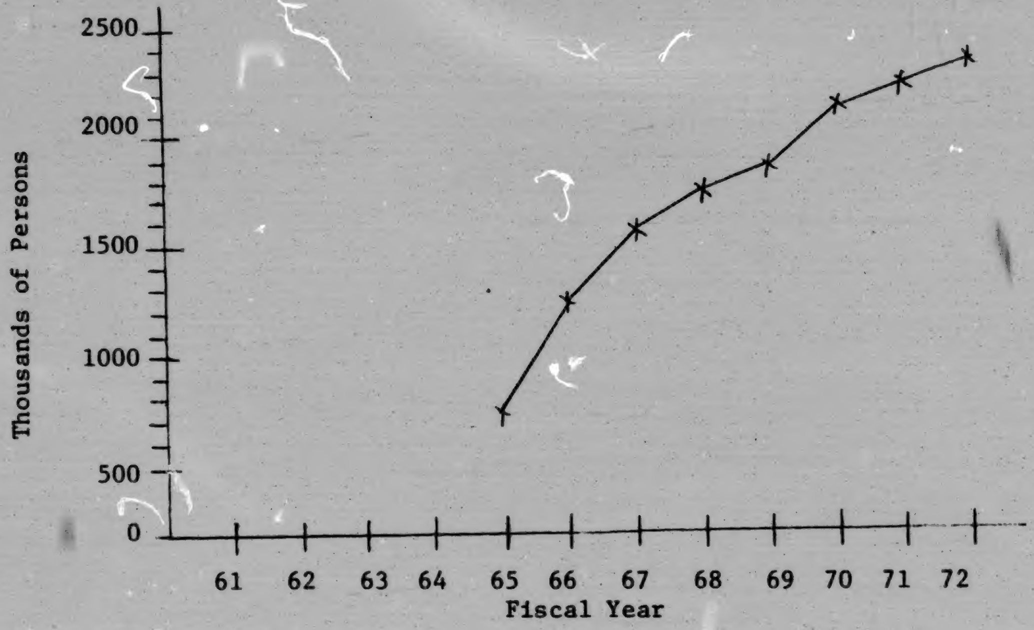
[1] Occupational Home Economics did not become part of vocational education until 1970.

Graph 17 - Occupational Home Economics Enrollment as a Percent of Total Vocational Education Enrollment, FY 1970 to FY 1972

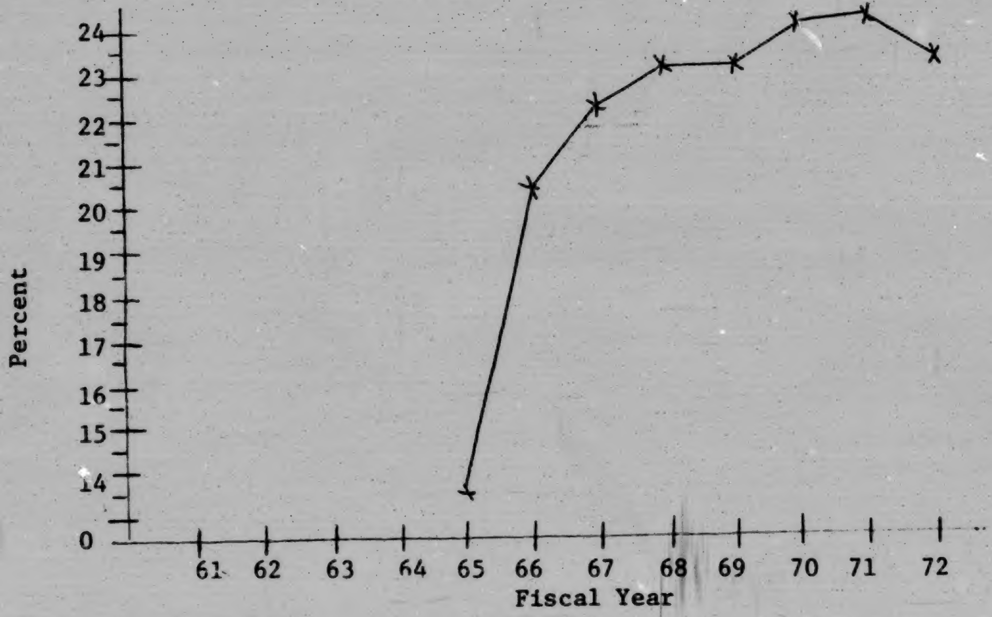


Graph 18 - Enrollment in Office Occupations, FY 1965 to FY 1972[1]

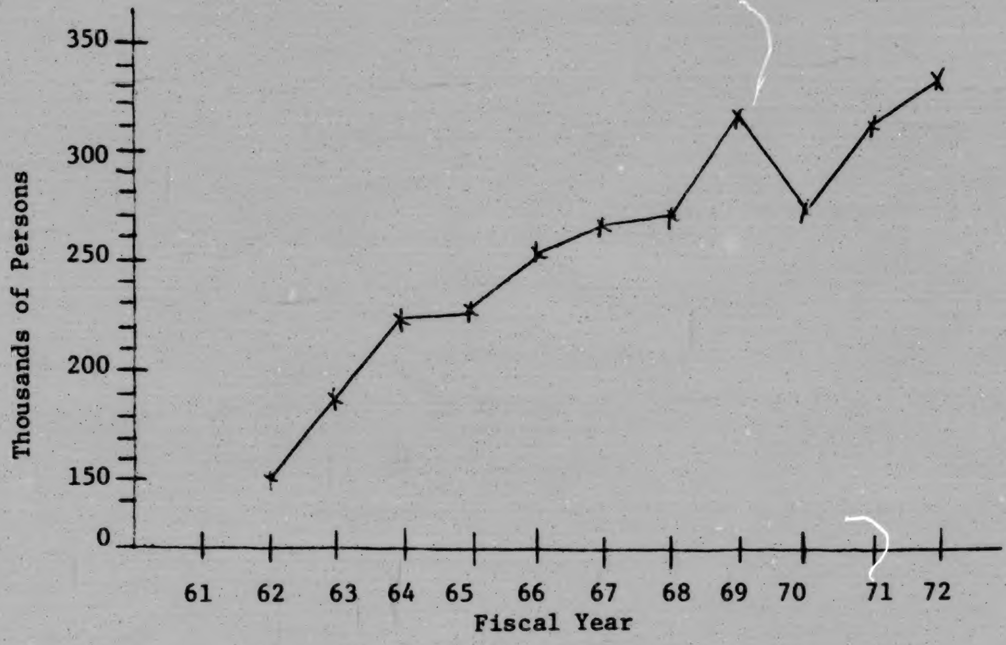


[1] Office Occupations were not included in vocational education until 1965.

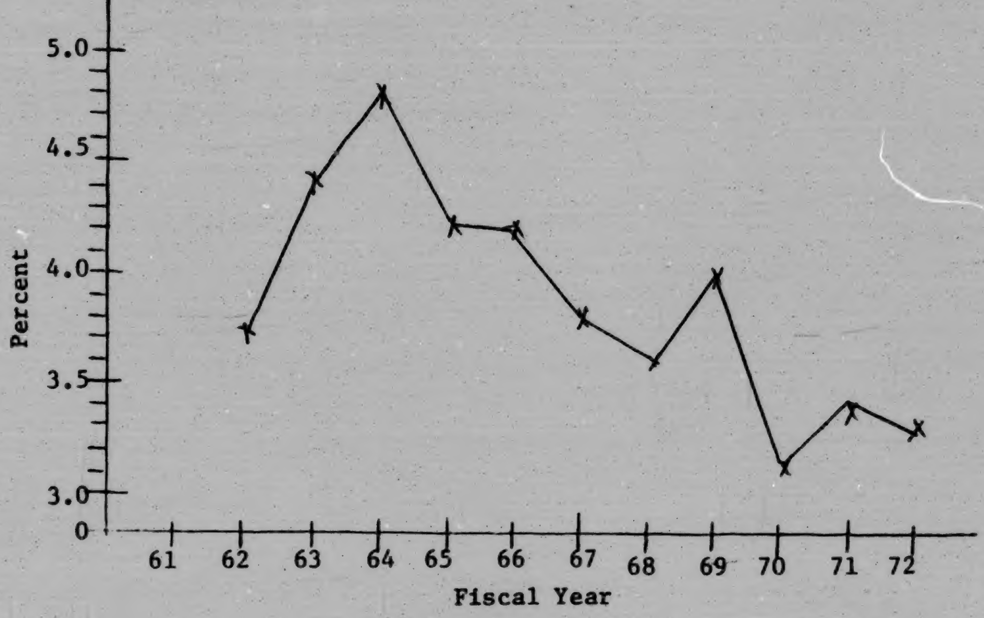
Graph 19 - Office Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



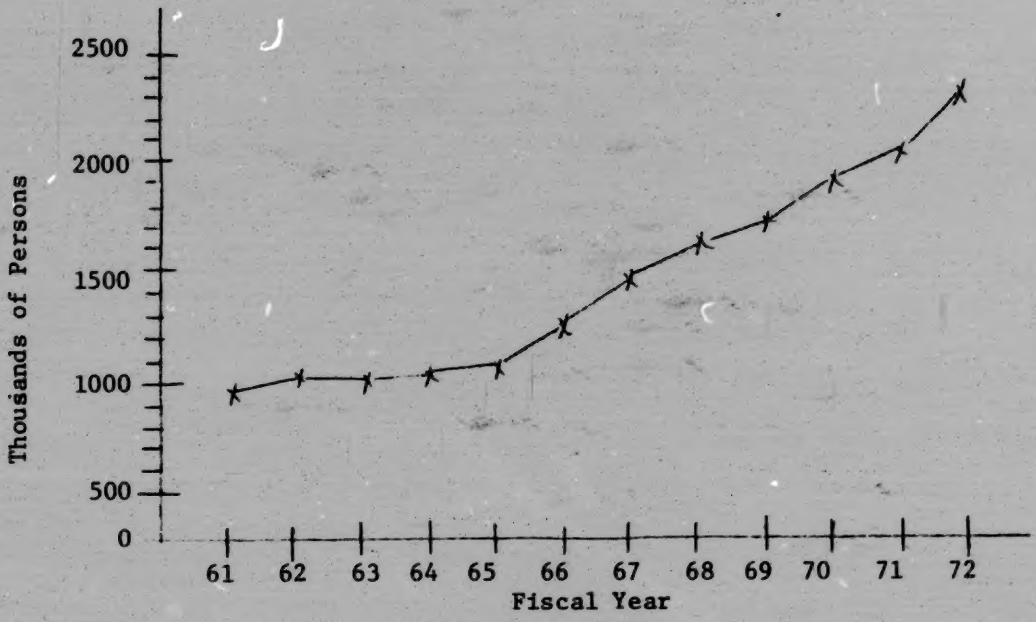
Graph 20 - Enrollment in Technical Education, FY 1961 to FY 1972



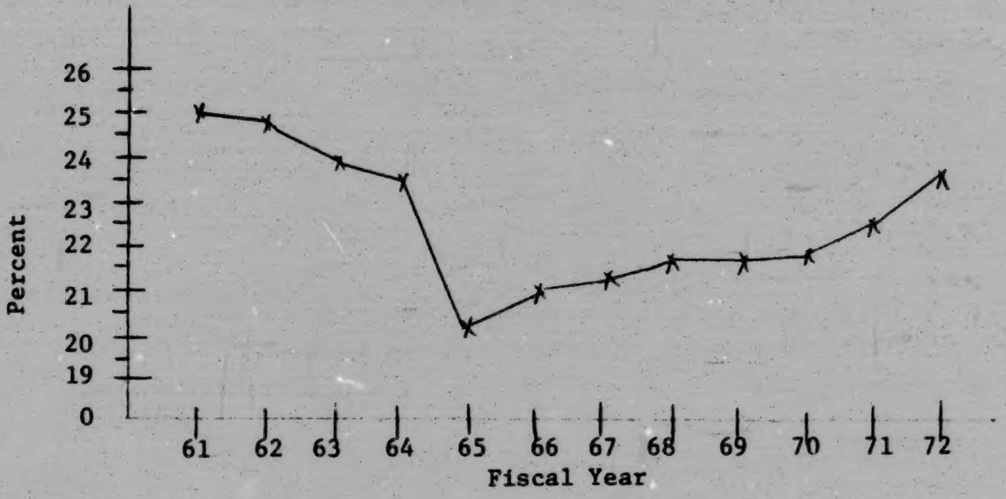
Graph 21 - Technical Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



Graph 22 - Enrollment in Trade & Industrial Education, FY 1961 to FY 1972



Graph 23 - Trade and Industrial Enrollment as a Percent of Total Vocational Education Enrollment, FY 1961 to FY 1972



Special group enrollment data. Tables 41 through 52 provide comparative data concerning a number of special interest groups and delineate the extent to which vocational education serves these special groups.

Enrollment of Negro vocational education students, Table 41. The largest percent to which Negro enrollment was part of total vocational education enrollment was 48.06 percent (South Carolina). The States immediately above and below the mean of 16.61 percent were Missouri (17.24 percent) and Texas (15.71 percent). The lowest percent was shown by New Hampshire (0.12 percent).

Four States reported no data (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Due to inaccurate reporting in Illinois figures do not depict a true picture of Negro enrollments in this State.

Table 41 - Enrollment of Negro Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percentage of Negroes in Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Negro Vocational Education Enrollments				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,887,584[1]	1,113,026	136,824	392,359	1,642,209	16.61
Alabama	157,746	34,893	7,641	12,127	54,661	34.65
Alaska	20,926	1,497	236	556	2,289	10.94
Arizona	102,806	1,987	863	320	3,170	3.08
Arkansas	110,224	18,104	1,041	5,604	24,749	22.45
California	1,221,509	55,114	30,655	28,985	114,754	9.39
Colorado	101,521	1,745	800	252	2,797	2.76
Connecticut	127,609	NA	NA	NA	NA	NA
Delaware	37,323	13,778	492	1,363	15,633	41.89
Dist. of C.	10,813					
Florida	511,750	72,704	15,466	36,353	124,523	24.33
Georgia	289,741	60,527	7,186	17,793	85,506	29.51
Hawaii	40,142	NA	NA	NA	NA	NA
Idaho	33,146	56	32	26	114	.34
Illinois	595,879	126,293	8,917	2,760	137,970[2]	23.15
Indiana	154,556	12,000	753	4,552	17,305	11.20
Iowa	133,442	2,070	1,206	1,148	4,424	3.32
Kansas	98,819	5,201	382	944	6,527	6.61
Kentucky	164,869	13,766	1,559	4,452	19,777	12.00
Louisiana	176,312	55,876	5,425	3,920	65,221	36.99
Maine	29,840	NA	NA	NA	NA	NA
Maryland	166,032	39,779	3,313	4,713	47,805	28.79
Massachusetts	163,799	7,479	546	642	8,667	5.29
Michigan	342,985	32,992	8,038	11,765	52,795	15.39
Minnesota	234,334	NA	NA	NA	NA	NA
Mississippi	109,561	33,790	2,373	11,617	47,780	43.61
Missouri	162,625	18,758	3,564	5,717	28,039	17.24
Montana	32,267	104	6	6	116	.36
Nebraska	68,796	810	238	1,090	2,138	3.11
Nevada	20,617	1,140	66	183	1,389	6.74
New Hampshire	25,310	28	3	0	31	.12
New Jersey	310,186	47,646	2,205	18,524	68,375	22.04
New Mexico	52,338	482	219	68	769	1.47
New York	754,489	99,310	2,572	33,922	135,804	18.00
N. Carolina	430,626	79,817	8,587	37,895	126,299	29.33
N Dakota	32,637	52	4	15	71	.22
Ohio	412,007	52,527	3,530	66,473	122,530	29.74
Oklahoma	107,395	5,349	349	2,390	8,088	7.53
Oregon	123,936	1,194	288	638	2,120	1.71
Pennsylvania	327,458	29,093	1,988	3,898	34,979	10.68
Rhode Island	19,992	525	27	180	732	3.66
S. Carolina	101,615	38,461	2,971	7,408	48,840	48.06
S. Dakota	22,287	7	0	39	46	.21
Tennessee	151,226	31,948	2,970	7,972	42,890	28.36
Texas	623,214	52,801	4,175	40,956	97,932	15.71
Utah	100,874	462	78	151	691	.69
Vermont	16,903	12	0	15	27	.16
Virginia	269,799	53,823	2,437	10,246	66,506	24.65
Washington	250,802	3,590	1,839	1,154	6,583	2.62
W. Virginia	63,312	2,085	120	571	2,776	4.38
Wisconsin	253,495	3,161	1,610	2,935	7,706	3.04
Wyoming	17,694	190	54	21	265	1.50
Puerto Rico						

[1] This total does not include students below grade 9. The totals by level include students below grade 9, so the resulting percentages are not accurate. This total also differs from other totals in this report because Puerto Rico is not included.

[2] Due to inaccurate reporting, Illinois figures do not show a true picture of negro enrollments in this State.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Negroes in vocational education and Negroes in the population, Table 42. The largest percent that Negroes represented of a total population was 71.08 percent (District of Columbia). The State showing the largest percent was Mississippi (36.80 percent). The States immediately above and below the mean of 11.11 percent were Michigan (11.17 percent) and New Jersey (10.75 percent). The lowest percent was shown by Vermont (0.17 percent).

The greatest number of percentage points in the difference between the percent of Negroes enrolled in vocational education and the percent of Negroes in the total population was 27.61 percentage points (Delaware). The States immediately above and below the mean of 5.50 percentage points were New York (6.11 percentage points) and Kentucky (4.83 percentage points). The States on either side of the median were California (2.37 percentage points) and Massachusetts (2.20 percentage points). The lowest was shown by Colorado (-0.25 percentage points).

No data were reported by four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Illinois race figures were inaccurately reported and do not reflect a true picture of enrollments.

Table 42 - Difference Between Percent of Negroes in Total Vocational Education and Percent of Negroes in Total Population, 1971-72

States	Total Population	Total Negro Population	Negroes as a Percent of Total Population	Total Negro Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Negroes in Vocational Education and Percent of Negroes in Total Population	Rank Order
U.S. TOTAL	203,214,446	22,579,689	11.11	16.61	5.50	
Alabama	3,444,165	903,467	26.23	34.65	8.42	9
Alaska	300,382	8,911	2.97	10.94	7.97	10
Arizona	1,773,420	52,744	2.97	3.08	.11	37
Arkansas	1,923,295	352,445	18.33	22.45	4.12	20
California	19,953,134	1,400,143	7.02	9.39	2.37	23
Colorado	2,207,259	66,411	3.01	2.76	-.25	45
Connecticut	3,031,709	181,177	5.98	NA	NA	NA
Delaware	548,104	78,276	14.28	41.89	27.61	1
Dist. of C.	756,510	537,712	71.08			
Florida	6,789,443	1,041,651	15.34	24.33	8.99	8
Georgia	4,589,575	1,187,149	25.87	29.51	3.64	21
Hawaii	768,561	7,573	.99	NA	NA	NA
Idaho	712,567	2,130	.30	.34	.04	40
Illinois	11,113,976	1,425,674	12.83	23.15[1]	10.32	7
Indiana	5,193,669	357,464	6.88	11.20	4.32	18
Iowa	2,824,376	32,596	1.15	3.32	2.17	25
Kansas	2,246,578	106,977	4.76	6.61	1.85	27
Kentucky	3,218,706	230,793	7.17	12.00	4.83	17
Louisiana	3,641,306	1,086,832	29.85	36.99	7.14	12
Maine	992,048	2,800	.28	NA	NA	NA
Maryland	3,922,399	699,479	17.83	28.79	10.96	6
Massachusetts	5,689,170	175,817	3.09	5.29	2.20	24
Michigan	8,875,083	991,066	11.17	15.39	4.22	19
Minnesota	3,804,971	34,868	.92	NA	NA	NA
Mississippi	2,216,912	815,770	36.80	43.61	6.81	14
Missouri	4,676,501	480,172	10.27	17.24	6.97	13
Montana	694,409	1,995	.29	.36	.07	38
Nebraska	1,483,493	39,911	2.69	3.11	.42	34
Nevada	488,738	27,762	5.68	6.74	1.06	28
New Hampshire	737,681	2,505	.34	.12	-.22	44
New Jersey	7,168,164	770,292	10.75	22.04	11.29	5
New Mexico	1,016,000	19,555	1.92	1.47	-.45	46
New York	18,236,967	2,168,949	11.89	18.00	6.11	16
N. Carolina	5,082,059	1,126,478	22.17	29.33	7.16	11
N. Dakota	617,761	2,494	.40	.22	-.18	43
Ohio	10,652,017	970,477	9.11	29.74	20.63	2
Oklahoma	2,559,229	171,892	6.72	7.53	.81	30
Oregon	2,091,385	26,308	1.26	1.71	.45	35
Pennsylvania	11,793,909	1,016,514	8.62	10.68	2.06	26
Rhode Island	946,725	25,338	2.68	3.66	.98	29
S. Carolina	2,590,516	789,041	30.46	48.06	17.60	3
S. Dakota	665,507	1,627	.24	.21	-.03	42
Tennessee	3,923,687	621,261	15.83	28.36	12.53	4
Texas	11,196,730	1,399,005	12.49	15.71	3.22	22
Utah	1,059,273	6,617	.62	.69	.07	39
Vermont	444,330	761	.17	.16	-.01	41
Virginia	4,648,494	861,368	18.53	24.65	6.12	15
Washington	3,409,169	71,308	2.09	2.62	.53	32
W. Virginia	1,744,237	67,342	3.86	4.38	.52	33
Wisconsin	4,417,731	128,224	2.90	3,04	.14	36
Wyoming	332,416	2,568	.77	1.50	.73	31
Puerto Rico						

[1] Due to inaccurate reporting, Illinois figures do not indicate a true picture of Negro enrollments.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Enrollment of American Indian vocational education students, Table 43. The total enrollment in vocational education of American Indians was 83,050. This figure was broken down into secondary, post-secondary, and adult. The totals for each level, and high and low enrollment figures among the States are listed below.

Levels		High		Low	
	Total	No.	State	No.	State
Secondary	60,990	12,627 11,571	Illinois* New York	0	Indiana, New Hampshire
Post-Secondary	8,694	1,319	California	0	Alabama, Delaware, District of Columbia, Indiana, Nebraska, New Hampshire, New Jersey, Rhode Island, Vermont
Adult	13,306	2,770	Alaska	0	Arkansas, Colorado, Delaware, District of Columbia, Indiana, Nebraska, New Hampshire, Rhode Island, Vermont
Total	83,050				

*Due to incorrect estimate on USOE Form 3138, Illinois shows more American Indians enrolled in vocational education than there are in the State's population.

The greatest percent to which American Indian enrollment was a part of total vocational education enrollment was 43.61 percent (Alaska). The States immediately above and below the mean of 0.84 percent were North Carolina (1.01 percent) and Colorado (0.62 percent). The lowest percent was 0.00 percent, in Indiana and New Hampshire.

No data were available for four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Table 43 - Enrollment of American Indian Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of American Indians in Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	American Indian Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,887,584[1]	60,990	8,694	13,366	83,050	.84
Alabama	157,746	6	0	2	8	.01
Alaska	20,926	5,309	1,047	2,770	9,126	43.61
Arizona	102,806	2,884	723	406	4,013	3.90
Arkansas	110,224	77	2	0	79	.07
California	1,221,509	2,370	1,319	1,247	4,936	.40
Colorado	101,521	416	217	0	633	.62
Connecticut	127,609	NA	NA	NA	NA	NA
Delaware	37,323	9	0	0	9	.02
Dist. of C.	10,813	2	0	0	2	.02
Florida	511,750	796	169	399	1,364	.27
Georgia	289,741	395	62	27	484	.17
Hawaii	40,142	NA	NA	NA	NA	NA
Idaho	33,146	307	124	78	509	1.54
Illinois	595,879	12,628	892	276	13,796[2]	2.32
Indiana	154,556	0	0	0	0	0.00
Iowa	133,442	69	21	102	192	.14
Kansas	98,819	277	26	41	344	.35
Kentucky	164,869	282	30	182	494	.30
Louisiana	176,312	28	4	10	42	.02
Maine	29,840	NA	NA	NA	NA	NA
Maryland	166,032	665	79	88	832	.50
Massachusetts	163,799	213	9	6	228	.14
Michigan	342,985	389	206	187	782	.23
Minnesota	234,334	NA	NA	NA	NA	NA
Mississippi	109,561	26	10	26	62	.06
Missouri	162,625	38	10	25	73	.04
Montana	32,267	2,318	178	102	2,598	8.05
Nebraska	68,796	212	0	0	212	.31
Nevada	20,617	634	32	58	724	3.51
New Hampshire	25,310	0	0	0	0	0.00
New Jersey	310,186	140	0	45	185	.06
New Mexico	52,338	4,715	358	163	5,236	10.00
New York	754,489	11,591	69	293	11,953	1.58
N. Carolina	430,626	2,330	551	1,476	4,357	1.01
N. Dakota	32,637	535	90	141	766	2.35
Ohio	412,007	396	29	250	675	.16
Oklahoma	107,395	3,934	284	1,943	6,161	5.74
Oregon	123,936	803	245	434	1,482	1.20
Pennsylvania	327,458	538	39	157	734	.22
Rhode Island	19,992	4	0	0	4	.02
S. Carolina	101,615	110	5	35	150	.15
S. Dakota	22,287	710	51	155	916	4.11
Tennessee	151,226	151	25	34	210	.14
Texas	623,214	382	56	340	778	.12
Utah	100,874	769	131	252	1,152	1.14
Vermont	16,903	2	0	0	2	.01
Virginia	269,799	625	24	20	669	.25
Washington	250,802	1,992	1,049	1,185	4,226	1.68
W. Virginia	63,312	13	1	4	18	.03
Wisconsin	253,495	489	480	400	1,369	.54
Wyoming	17,694	411	47	7	465	2.63
Puerto Rico						

[1] This total does not include students below grade 9. The totals by level include students below grade 9, so the resulting percentages are not accurate. This total also differs from other totals in this report because Puerto Rico is not included.

[2] Due to incorrect estimate on U.S. Office of Education Form 3138, Illinois shows more American Indians enrolled in its vocational education than there are in the State's population. At this time no correction has been made on the Illinois form. Glen T. Byram, Assistant Director, Vocational Education, 4-3-73.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

American Indians in vocational education and American Indians in the population, Table 44. The largest percent that the American Indian population was of the total population was 7.16 percent (New Mexico). The State at the mean of 0.39 percent was Kansas. The lowest percent was shown by West Virginia (0.04 percent).

The largest percentage-point difference between the percent of American Indians enrolled in vocational education and the percent of American Indians in the total population was 38.19 percentage points (Alaska). The States immediately above and below the mean of 0.45 percentage points were Oregon (0.55 percentage points) and Maryland (0.39 percentage points). Massachusetts (0.06 percentage points) was at the median. The lowest was reported by Arizona (-1.51 percentage points).

No data were available for four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Inaccurate reporting in Illinois results in an excess of American Indian enrollments.

Table 44 - Difference Between Percent of American Indians in Total Vocational Education and Percent of American Indians in Total Population, 1971-72

States	Total Population	Total American Indian Population	American Indian Population as a Percent of Total Population	Total American Indian Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of American Indians in Vocational Education & American Indians in Total Population	Rank Order
U.S. TOTAL	203,214,446	792,866	.39	.84	.45	
Alabama	3,444,165	2,443	.07	.01	-.06	36
Alaska	300,382	16,276	5.42	43.61	38.19	1
Arizona	1,773,420	95,948	5.41	3.90	-1.51	47
Arkansas	1,923,295	2,014	.10	.07	-.03	31
California	19,953,134	91,018	.46	.40	-.06	37
Colorado	2,207,259	8,836	.40	.62	.22	14
Connecticut	3,031,709	2,222	.07	NA	NA	NA
Delaware	548,104	656	.12	.02	-.10	40
Dist. of C.	756,510	956	.13	.02	-.11	41
Florida	6,789,443	6,677	.10	.27	.17	15
Georgia	4,589,575	2,347	.05	.17	.12	19
Hawaii	768,561	1,126	.15	NA	NA	NA
Idaho	712,567	6,687	.94	1.54	.60	10
Illinois	11,113,976	11,413	.10	2.32[1]	2.22	4
Indiana	5,193,669	3,887	.07	0.00	-.07	38
Iowa	2,824,376	2,992	.11	.14	.03	27
Kansas	2,246,578	8,672	.39	.35	-.04	32
Kentucky	3,218,706	1,531	.05	.30	.25	13
Louisiana	3,641,306	5,294	.15	.02	-.13	42
Maine	992,048	2,195	.22	NA	NA	NA
Maryland	3,922,399	4,239	.11	.50	.39	12
Massachusetts	5,689,170	4,475	.08	.14	.06	24
Michigan	8,875,083	16,854	.19	.23	.04	26
Minnesota	3,804,971	23,128	.61	NA	NA	NA
Mississippi	2,216,912	4,113	.19	.06	-.13	43
Missouri	4,676,501	5,405	.12	.04	-.08	39
Montana	694,409	27,130	3.91	8.05	4.14	2
Nebraska	1,483,493	6,624	.45	.31	-.14	45
Nevada	488,738	7,933	1.62	3.51	1.89	5
New Hampshire	737,681	361	.05	0.00	-.05	35
New Jersey	7,168,164	4,706	.07	.06	-.01	29
New Mexico	1,016,000	72,788	7.16	10.00	2.84	3
New York	18,236,967	28,355	.16	1.58	1.42	7
N. Carolina	5,082,059	44,406	.87	1.01	.14	18
N. Dakota	617,761	14,369	2.33	2.35	.02	28
Ohio	10,652,017	6,654	.06	.16	.10	21
Oklahoma	2,559,229	98,468	3.85	5.74	1.89	6
Oregon	2,091,385	13,510	.65	1.20	.55	11
Pennsylvania	11,793,909	5,533	.05	.22	.17	16
Rhode Island	946,725	1,390	.15	.02	-.13	44
S. Carolina	2,590,516	2,241	.09	.15	.06	25
S. Dakota	665,507	32,365	4.86	4.11	-.75	46
Tennessee	3,923,687	2,276	.06	.14	.08	22
Texas	11,196,730	17,957	.16	.12	-.04	33
Utah	1,059,273	11,273	1.06	1.14	.08	23
Vermont	444,330	229	.05	.01	-.04	34
Virginia	4,648,494	4,853	.10	.25	.15	17
Washington	3,409,169	33,386	.98	1.68	.70	9
W. Virginia	1,744,237	751	.04	.03	-.01	30
Wisconsin	4,417,731	18,924	.43	.54	.11	20
Wyoming	332,416	4,980	1.50	2.63	1.13	8
Puerto Rico						

[1] Inaccurate reporting in Illinois results in an excess of American Indian enrollments on this table.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Oriental vocational education students, Table 45. The total enrollment in vocational education of Orientals was 98,940. The totals for each level, and high and low enrollment figures among the States were:

Levels		High		Low	
	Total	No.	State	No.	State
Secondary	69,108	37,888 13,038	Illinois* California	0	Indiana
Post-Secondary	14,221	7,252	California	0	Alabama, Indiana Montana, Nebraska, New Hampshire, North Carolina, Vermont
Adult	15,611	6,856	California	0	Indiana, Montana Nebraska, New Hampshire, North Carolina, South Carolina
Total	98,948				

*Due to incorrect estimate on USOE Form 3138, Illinois shows more Orientals enrolled in its vocational education than there are in the State's population.

The largest percent to which Oriental enrollment was a part of total vocational education enrollment was 3.56 percent (District of Columbia). The States immediately above and below the mean of 1.00 percent were New York (1.27 percent) and Oregon (0.71 percent). The lowest percent was 0.00 percent, reported by Alabama and Indiana.

No data were available for four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Table 45 - Enrollment of Oriental Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Orientals in Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Oriental Vocational Education Enrollment				Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,887,584[1]	69,108	14,221	15,611	98,940	1.00
Alabama	157,746	5	0	1	6	0.00
Alaska	20,926	421	23	120	564	2.70
Arizona	102,806	197	107	27	331	.32
Arkansas	110,224	305	6	201	512	.46
California	1,221,509	13,038	7,252	6,856	27,146	2.22
Colorado	101,521	841	198	728	1,767	1.74
Connecticut	127,609	NA	NA	NA	NA	NA
Delaware	37,323	56	7	1	64	.17
Dist. of C.	10,813	345	15	25	385	3.56
Florida	511,750	605	128	305	1,038	.20
Georgia	289,741	85	43	81	209	.07
Hawaii	40,142	NA	NA	NA	NA	NA
Idaho	33,146	118	31	34	183	.55
Illinois	595,879	37,888	2,675	830	41,393[2]	6.95
Indiana	154,556	0	0	0	0	0.00
Iowa	133,442	21	36	26	83	.06
Kansas	98,819	54	6	28	88	.09
Kentucky	164,869	28	10	17	55	.03
Louisiana	176,312	119	9	12	140	.08
Maine	29,840	NA	NA	NA	NA	NA
Maryland	166,032	507	122	232	861	.52
Massachusetts	163,799	278	24	137	439	.27
Michigan	342,985	1,409	179	276	1,864	.54
Minnesota	234,334	NA	NA	NA	NA	NA
Mississippi	109,561	10	6	30	46	.04
Missouri	162,625	195	117	140	452	.28
Montana	32,267	7	0	0	7	.02
Nebraska	68,796	56	0	0	56	.08
Nevada	20,617	82	11	12	105	.51
New Hampshire	25,310	16	0	0	16	.06
New Jersey	310,186	207	36	128	371	.12
New Mexico	52,338	133	6	11	150	.29
New York	754,489	6,943	310	2,310	9,563	1.27
N. Carolina	430,626	196	0	0	196	.05
N. Dakota	32,637	12	2	20	34	.10
Ohio	412,007	556	41	341	938	.23
Oklahoma	107,395	51	16	9	76	.07
Oregon	123,936	489	138	249	876	.71
Pennsylvania	327,458	131	39	115	285	.09
Rhode Island	19,992	20	4	13	37	.19
S. Carolina	101,615	27	1,384	0	1,411	1.39
S. Dakota	22,287	9	1	1	11	.05
Tennessee	151,226	27	35	31	93	.06
Texas	623,214	565	100	1,110	1,775	.28
Utah	100,874	385	65	126	576	.57
Vermont	16,903	2	0	5	7	.04
Virginia	269,799	575	56	75	706	.26
Washington	250,802	1,859	900	773	3,532	1.41
W. Virginia	63,312	32	1	21	54	.09
Wisconsin	253,495	122	70	150	342	.13
Wyoming	17,694	81	12	4	97	.55
Puerto Rico						

[1] This total does not include students below grade 9. The totals by level include students below grade 9, so the resulting percentages are not accurate. This total also differs from other totals in this report because Puerto Rico is not included.

[2] Due to incorrect estimate on U.S. Office of Education Form 3138, Illinois shows more Orientals enrolled in vocational education than there are in the State's population. At this time no correction has been made on the Illinois form. Glen T. Byram, Assistant Director, Vocational Education, 4-3-73.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Orientals in vocational education and Orientals in the population, Table 46. The largest percent that the Oriental population was of the total population was 35.05 percent (Hawaii). The States immediately above and below the mean of 0.51 percent were New York (0.56 percent) and Colorado (0.42 percent). The District of Columbia (0.43 percent) was also near the mean. The lowest percent was 0.04 percent, shown by West Virginia.

Table 46 - Difference Between Percent of Orientals in Total Vocational Education and Percent of Orientals in Total Population, 1971-72

States	Total Population	Total Oriental Population	Orientals as a Percent of Total Population	Total Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Orientals in Vocational Education and the Percent of Orientals in Total Population	Rank Order
U.S. TOTAL	203,214,446	1,028,004	.51	1.00	.49	
Alabama	3,444,165	[illegible]	.05	0.00	-.05	40
Alaska	300,382	[illegible]	.38	2.70	2.32	3
Arizona	1,773,420	[illegible]	.35	.32	-.03	37
Arkansas	1,923,295	1,330	.07	.46	.39	9
California	19,953,134	383,411	1.92	2.22	.30	10
Colorado	2,207,259	9,320	.42	1.74	1.32	5
Connecticut	3,031,709	3,830	.13	NA	NA	NA
Delaware	548,104	918	.17	.17	0.00	27
Dist. of C.	756,510	3,233	.43	3.56	3.13	2
Florida	6,789,443	7,223	.11	.20	.09	19
Georgia	4,589,575	3,420	.07	.07	0.00	28
Hawaii	768,561	269,346	35.05	NA	NA	NA
Idaho	712,567	2,753	.39	.55	.16	14
Illinois	11,113,976	31,773	.29	6.95[1]	6.66	1
Indiana	5,193,669	4,394	.08	0.00	-.08	45
Iowa	2,824,376	2,002	.07	.06	-.01	30
Kansas	2,246,578	2,817	.13	.09	-.04	39
Kentucky	3,218,706	1,653	.05	.03	-.02	33
Louisiana	3,641,306	2,463	.07	.08	.01	24
Maine	992,048	554	.06	NA	NA	NA
Maryland	3,922,399	10,253	.26	.52	.26	12
Massachusetts	5,689,170	18,405	.32	.27	-.05	41
Michigan	8,875,083	11,628	.13	.54	.41	8
Minnesota	3,804,971	5,025	.13	NA	NA	NA
Mississippi	2,216,912	1,902	.09	.04	-.05	42
Missouri	4,676,501	5,197	.11	.28	.17	13
Montana	694,409	863	.12	.02	-.10	47
Nebraska	1,483,493	1,865	.13	.08	-.05	43
Nevada	488,738	2,042	.42	.51	,09	20
New Hampshire	737,681	780	.11	.06	-.05	44
New Jersey	7,168,164	14,914	.21	.12	-.09	46
New Mexico	1,016,000	1,503	.15	.29	.14	16
New York	18,236,967	101,729	.56	1.27	.71	6
N. Carolina	5,082,059	3,359	.07	.05	-.02	34
N. Dakota	617,761	404	.07	.10	.03	23
Ohio	10,652,017	10,860	.10	.23	.13	17
Oklahoma	2,559,229	2,407	.09	.07	-.02	35
Oregon	2,091,385	13,290	.64	.71	.07	21
Pennsylvania	11,793,909	12,514	.11	.09	-.02	36
Rhode Island	946,725	1,722	.18	.19	.01	25
S. Carolina	2,590,516	1,347	.05	1.39	1.34	4
S. Dakota	665,507	384	.06	.05	-.01	31
Tennessee	3,923,687	2,770	.07	.06	-.01	32
Texas	11,196,730	14,172	.13	.28	.15	15
Utah	1,059,273	5,994	.57	.57	0.00	29
Vermont	444,330	307	.07	.04	-.03	38
Virginia	4,648,494	6,305	.14	.26	.12	18
Washington	3,409,169	29,536	.87	1.41	.54	7
W. Virginia	1,744,237	741	.04	.09	.05	22
Wisconsin	4,417,731	5,348	.12	.13	.01	26
Wyoming	332,416	858	.26	.55	.29	11
Puerto Rico						

[1] Illinois race figures are inaccurate due to incorrect estimates.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

The greatest percentage-point difference between the percent of Orientals enrolled in vocational education and the percent of Orientals in the total population was 6.66 percentage points (Illinois). The States immediately above and below the mean of 0.49 percentage points were Washington (0.54 percentage points) and Michigan (0.41 percentage points). Louisiana (0.01 percentage points) was at the median. The lowest was shown by Montana (-0.10 percentage points).

No data were available for four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Inaccurate reporting of Oriental enrollments in Illinois shows more Orientals enrolled in vocational education than in the population.

Spanish-surnamed American vocational education students, Table 47. The total enrollment in vocational education of Spanish-surnamed Americans was 599,068. The totals for each level, and high and low enrollment figures among the States were:

Levels		High		Low	
	Total	No.	State	No.	State
Secondary	373,786	94,820	California	0	Alaska, South Carolina
Post-Secondary	79,153	52,742	California	0	Alabama, Alaska, Nebraska, North Carolina, South Carolina, Vermont
Adult	146,129	49,866	California	0	Alaska, South Carolina
Total	599,068				

The greatest percent to which Spanish-surnamed American enrollment was a part of the total vocational education enrollment was 54.23 percent (New Mexico). The States immediately above and below the mean of 6.06 percent were New York (9.85 percent) and New Jersey (5.21 percent). The District of Columbia (8.32 percent) was also near the mean. The lowest percent (0.00 percent) was reported by Alaska and South Carolina.

No data were reported by four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Reporting errors in other race figures in Illinois indicate Spanish-surnamed Americans may also be inaccurate.

Table 47 - Enrollment of Spanish-surnamed American Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Spanish-surnamed Americans in Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Spanish-surnamed American Vocational Education Enrollment				Spanish-surnamed American Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,887,584[1]	373,786	79,153	146,129	599,068	6.06
Alabama	157,746	13	0	2	15	.01
Alaska	20,926	0	0	0	0	0.00
Arizona	102,806	8,260	2,415	1,272	11,947	11.62
Arkansas	110,224	485	5	5	495	.45
California	1,221,509	94,820	52,742	49,866	197,428	16.16
Colorado	101,521	6,431	2,435	3,170	12,036	11.86
Connecticut	127,609	NA	NA	NA	NA	NA
Delaware	37,323	186	15	0	201	.54
Dist. of C.	10,813	825	40	35	900	8.32
Florida	511,750	13,448	2,860	6,725	23,033	4.50
Georgia	289,741	57	37	82	176	.06
Hawaii	40,142	NA	NA	NA	NA	NA
Idaho	33,146	383	87	144	614	1.85
Illinois	595,879	63,147	4,458	1,402	69,007[2]	11.58
Indiana	154,556	2,400	151	910	3,461	2.24
Iowa	133,442	246	115	78	539	.40
Kansas	98,819	1,067	157	212	1,436	1.45
Kentucky	164,869	150	9	50	209	.13
Louisiana	176,312	592	24	75	691	.39
Maine	29,840	NA	NA	NA	NA	NA
Maryland	166,032	592	68	146	806	.49
Massachusetts	163,799	1,255	561	453	2,269	1.39
Michigan	342,985	1,713	415	780	2,908	.85
Minnesota	234,334	NA	NA	NA	NA	NA
Mississippi	109,561	80	15	32	127	.12
Missouri	162,625	441	191	366	998	.61
Montana	32,267	107	20	24	151	.47
Nebraska	68,796	622	0	0	622	.90
Nevada	20,617	493	23	80	596	2.89
New Hampshire	25,310	33	1	0	34	.13
New Jersey	310,186	11,510	371	4,285	16,166	5.21
New Mexico	52,338	21,339	2,768	4,275	28,382	54.23
New York	754,489	56,153	971	17,181	74,305	9.85
N. Carolina	430,626	398	0	0	398	.09
N. Dakota	32,637	31	2	16	49	.15
Ohio	412,007	2,471	163	1,412	4,046	.98
Oklahoma	107,395	418	22	117	557	.52
Oregon	123,936	510	133	268	911	.74
Pennsylvania	327,458	2,673	100	603	3,376	1.03
Rhode Island	19,992	186	6	45	237	1.19
S. Carolina	101,615	0	0	0	0	0.00
S. Dakota	22,287	57	6	82	145	.65
Tennessee	151,226	46	58	44	148	.10
Texas	623,214	71,437	5,720	49,163	126,320	20.27
Utah	100,874	2,691	457	883	4,031	4.00
Vermont	16,903	10	0	9	19	.11
Virginia	269,799	862	51	103	1,016	.38
Washington	250,802	2,523	952	468	3,943	1.57
W. Virginia	63,312	29	2	17	48	.08
Wisconsin	253,495	436	280	920	1,636	.65
Wyoming	17,694	2,160	247	229	2,636	14.90
Puerto Rico						

[1] This total does not include students below grade 9. The totals by level do include students below grade 9, so the resulting percentages are not accurate.

[2] Incorrect figures for other races in Illinois indicate Spanish-surnamed American figures may also be inaccurate.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Other vocational education students, Table 48. Having considered four recognized minority groups enrolled in vocational education, the data on the remaining enrollees are now examined. Recognizing there are other racial, ethnic, cultural, and religious minorities in the remaining group, those persons are viewed as a part of the whole for purposes of analysis.

The total enrollment in vocational education of Other students was 8,434,077. The totals for each level, and high and low enrollment figures among the States were:

Levels		High		Low	
	Total	No.	State	No.	State
Secondary	5,112,251	1,022,978	Illinois*	4,647 0	Alaska District of Columbia
Post-Secondary	1,007,899	237,667	California	212 0	Vermont District of Columbia
Adult	2,313,927	224,709	California	727 0	Wyoming District of Columbia
Total	8,434,077				

*Reporting errors in other race figures in Illinois indicate these figures may also be inaccurate.

The greatest percent to which Other enrollment was a part of the total vocational education enrollment was 187.55 percent (Illinois). The States immediately above and below the mean of 85.30 percent were Indiana (86.56 percent) and Colorado (83.03 percent). The lowest percent for a State was 42.85 percent (Alaska). The District of Columbia had a still lower percent (0.00 percent).

No data were reported by four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

Table 48 - Enrollment of Other Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing a Percent of Others in Total Vocational Education Enrollment, 1971-72

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States	Total Vocational Education Enrollment	Other Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,887,584[1]	5,112,251	1,007,899	2,313,927	8,434,077	85.30
Alabama	157,746	67,185	12,212	32,411	111,808	70.86
Alaska	20,926	4,647	1,508	2,812	8,967	42.85
Arizona	102,806	37,789	34,210	12,184	84,183	81.89
Arkansas	110,224	48,380	5,186	36,482	90,048	81.70
California	1,221,509	427,280	237,667	224,709	889,656	72.83
Colorado	101,521	42,610	11,314	30,364	84,288	83.03
Connecticut	127,609	NA	NA	NA	NA	NA
Delaware	37,323	24,124	735	2,661	27,520	73.73
Dist. of C.	10,813	0	0	0	0	0.00
Florida	511,750	265,657	56,550	132,713	454,920	88.89
Georgia	289,741	117,158	18,934	83,137	219,229	75.66
Hawaii	40,142	NA	NA	NA	NA	NA
Idaho	33,146	21,822	2,981	7,232	32,035	96.65
Illinois	595,879	1,022,978	72,226	22,344	1,117,548[2]	187.55
Indiana	154,556	87,106	6,625	40,059	133,790	86.56
Iowa	133,442	49,988	14,618	63,598	128,204	96.07
Kansas	98,819	42,424	8,712	45,498	96,634	97.79
Kentucky	164,869	84,943	11,236	48,155	144,334	87.54
Louisiana	176,312	69,644	13,913	26,736	110,293	62.56
Maine	29,840	NA	NA	NA	NA	NA
Maryland	166,032	119,440	15,940	29,630	165,010	99.38
Massachusetts	163,799	112,459	11,879	27,858	152,196	92.92
Michigan	342,985	145,682	54,378	84,576	284,636	82.99
Minnesota	234,334	NA	NA	NA	NA	NA
Mississippi	109,561	29,637	6,408	31,225	67,270	61.40
Missouri	162,625	92,735	10,400	29,928	133,063	81.82
Montana	32,267	20,065	3,977	9,011	33,053	102.44
Nebraska	68,796	39,413	6,942	24,474	70,829	102.96
Nevada	20,617	13,438	1,918	3,765	19,121	92.74
New Hampshire	25,310	27,708	2,007	5,378	35,093	138.65
New Jersey	310,186	140,936	14,362	69,791	225,089	72.57
New Mexico	52,338	15,219	3,364	3,975	22,558	43.10
New York	754,489	474,720	58,961	154,615	688,296	91.23
N. Carolina	430,626	149,010	37,283	169,850	356,143	82.70
N. Dakota	32,637	19,437	4,209	8,071	31,717	97.18
Ohio	412,007	175,033	16,423	127,072	318,528	77.31
Oklahoma	107,395	52,289	5,161	35,686	93,136	86.72
Oregon	123,936	71,903	21,640	35,742	129,285	104.32
Pennsylvania	327,458	156,638	27,678	103,768	288,084	87.98
Rhode Island	19,992	12,515	1,021	5,446	18,982	94.95
S. Carolina	101,615	46,809	3,103	10,829	60,741	59.78
S. Dakota	22,287	18,754	1,944	4,554	25,252	113.30
Tennessee	151,226	64,323	14,685	30,412	109,420	72.36
Texas	623,214	204,702	42,457	173,915	421,074	67.56
Utah	100,874	72,560	12,327	23,850	108,737	107.79
Vermont	16,903	12,166	212	4,520	16,898	99.97
Virginia	269,799	138,339	16,239	112,908	267,486	99.14
Washington	250,802	122,837	53,961	62,754	239,552	95.51
W. Virginia	63,312	36,365	2,561	21,680	60,606	95.73
Wisconsin	253,495	99,070	46,550	96,822	242,442	95.64
Wyoming	17,694	14,314	1,282	727	16,323	92.25
Puerto Rico	NA	NA	NA	NA	NA	NA

[1] This total does not include students below grade 9. The totals by level include students below grade 9, so the resulting percentages are not accurate.

[2] Inaccurate figures for other races in Illinois indicate Other vocational education student figures may also be inaccurate.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Other students in vocational education and Others in the population, Table 49. The largest percent that Other population was of the total population was 99.71 percent (Vermont). The States immediately above and below the mean of 87.99 percent were Michigan (88.51 percent) and New York (87.39 percent). The lowest percent was 28.37 percent, shown by the District of Columbia. The State which reported the lowest percent was Mississippi (62.93 percent).

Table 49 - Difference Between Percent of Other Students in Total Vocational Education and Percent of Others in Total Population, 1971-72

States	Total Population	Total Other Population	Others as a Percent of Total Population	Total Other Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Others in Vocational Education and the Percent of Others in Total Population	Rank Order
U.S. TOTAL	203,214,446	178,813,887	87.99	85.30	-2.69	
Alabama	3,444,165	2,536,550	73.65	70.88	-2.77	27
Alaska	300,382	274,051	91.23	42.85	-48.38	47
Arizona	1,773,420	1,618,437	91.26	81.89	-9.37	36
Arkansas	1,923,295	1,567,506	81.50	81.70	.20	17
California	19,953,134	18,078,562	90.61	72.83	-17.78	43
Colorado	2,207,259	2,122,692	96.17	83.03	-13.14	40
Connecticut	3,031,709	2,844,480	93.82	NA	NA	NA
Delaware	548,104	468,254	85.43	73.73	-11.70	39
Dist. of C.	756,510	214,609	28.37	0.00	-28.37	45
Florida	6,789,443	5,733,892	84.45	88.89	4.44	11
Georgia	4,589,575	3,396,659	74.01	75.66	1.65	14
Hawaii	768,561	490,516	63.82	NA	NA	NA
Idaho	712,567	700,997	98.38	96.65	-1.73	23
Illinois	11,113,976	9,645,116	86.78	187.55	100.77	1
Indiana	5,193,669	4,827,924	92.96	86.56	-6.40	33
Iowa	2,824,376	2,786,786	98.67	96.07	-2.60	25
Kansas	2,246,578	2,128,112	94.73	97.79	3.06	13
Kentucky	3,218,706	2,984,729	92.73	87.54	-5.19	30
Louisiana	3,641,306	2,546,717	69.94	62.56	-7.38	34
Maine	992,048	986,499	99.44	NA	NA	NA
Maryland	3,922,399	3,208,428	81.80	99.38	17.58	5
Massachusetts	5,689,170	5,490,473	96.51	92.92	-3.59	29
Michigan	8,875,083	7,855,535	88.51	82.99	-5.52	32
Minnesota	3,804,971	3,741,950	98.34	NA	NA	NA
Mississippi	2,216,912	1,395,127	62.93	61.40	-1.53	22
Missouri	4,676,501	4,185,727	89.51	81.82	-7.69	35
Montana	694,409	664,421	95.68	102.44	6.76	8
Nebraska	1,483,493	1,435,093	96.74	102.96	6.22	9
Nevada	488,738	451,001	92.28	92.74	.46	15
New Hampshire	737,681	734,035	99.51	138.65	39.14	2
New Jersey	7,168,164	6,378,252	88.98	72.57	-16.41	42
New Mexico	1,016,000	922,154	90.76	43.10	-47.66	46
New York	18,236,967	15,937,934	87.39	91.23	3.84	12
N. Carolina	5,082,059	3,907,816	76.89	82.70	5.81	10
N. Dakota	617,761	600,494	97.20	97.18	.02	18
Ohio	10,652,017	9,664,026	90.72	77.31	-13.41	41
Oklahoma	2,559,229	2,286,462	89.34	86.72	-2.62	26
Oregon	2,091,385	2,038,277	97.46	104.32	6.86	7
Pennsylvania	11,793,909	10,759,348	91.23	87.98	-3.25	28
Rhode Island	946,725	918,275	96.99	94.95	-2.04	24
S. Carolina	2,590,516	1,797,887	69.40	59.78	-9.62	37
S. Dakota	665,507	631,131	94.83	113.30	18.47	3
Tennessee	3,923,687	3,297,380	84.04	72.36	-11.68	38
Texas	11,196,730	9,765,596	87.22	67.56	-19.66	44
Utah	1,059,273	1,035,389	97.75	107.79	10.04	6
Vermont	444,330	443,033	99.71	99.97	.26	16
Virginia	4,648,494	3,775,968	81.23	99.14	17.91	4
Washington	3,409,169	3,274,939	96.06	95.51	-.55	20
W. Virginia	1,744,237	1,675,403	96.05	95.73	-.32	19
Wisconsin	4,417,731	4,265,235	96.55	95.64	-.91	21
Wyoming	332,416	324,010	97.47	92.25	-5.22	31
Puerto Rico	NA	NA	NA	NA	NA	NA

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

The greatest percentage-point difference between the percent of Other students enrolled in vocational education and the percent of Other persons in the total population was 100.77 percentage points (Illinois). (Reporting errors in other race figures make this figure inaccurate.) The States immediately below and above the mean of -2.69 percentage points were Alabama (-2.77 percentage points) and Oklahoma (-2.62 percentage points). The State at the median was Rhode Island (-2.04 percentage points). The lowest was -48.38 percentage points (Alaska).

No data were available from four States (Connecticut, Hawaii, Maine, and Minnesota) and Puerto Rico was not included.

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Male and female enrollment in vocational education, Table 50. The greatest percent that male vocational education enrollment was part of the total vocational education enrollment was 56.17 percent (Alabama). The States immediately above and below the mean of 44.50 percent were Massachusetts (45.12 percent) and Georgia (44.26 percent). The lowest percent was 26.51 percent, shown by Puerto Rico. The State that reported the lowest percent was Maryland (28.70 percent).

Table 50 - Male and Female Enrollment in Vocational Education as a Percent of Total Vocational Education Enrollment, 1971-72

States	Total Vocational Education Enrollment	Total Male Vocational Education Enrollment	Male Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order	Total Female Vocational Education Enrollment	Female Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	9,984,416	4,442,617	44.50		5,541,799	55.50	
Alabama	157,746	88,606	56.17	1	69,140	43.83	52
Alaska	20,926	11,279	53.90	4	9,647	46.10	49
Arizona	102,806	44,597	43.38	30	58,209	56.62	23
Arkansas	110,224	56,743	51.48	10	53,481	48.52	43
California	1,221,509	561,283	45.95	25	660,226	54.05	28
Colorado	101,52[illegible]	43,224	42.58	32	58,297	57.42	21
Connecticut	127,[illegible]09	48,619	38.10	45	78,990	61.90	8
Delaware	37,323	15,064	40.36	38	22,[illegible]59	59.64	15
Dist. of C.	10,813	3,842	35.53	48	[illegible],97[illegible]	64.47	5
Florida	511,750	215,651	42.14	34	29[illegible],099	[illegible].86	19
Georgia	289,741	128,239	44.26	28	161,502	55.74	25
Hawaii	40,142	18,943	47.19	20	21,199	52.81	33
Idaho	33,146	13,868	41.84	35	19,278	58.16	18
Illinois	595,879	313,313	52.58	9	282,566	47.42	44
Indiana	154,556	65,447	42.35	33	89,109	57.65	20
Iowa	133,442	64,570	48.39	15	68,872	51.61	38
Kansas	98,819	53,184	53.82	5	45,635	46.18	48
Kentucky	164,869	78,913	47.86	17	85,956	52.14	36
Louisiana	176,312	67,210	38.12	44	109,102	61.88	9
Maine	29,840	13,756	46.10	23	16,084	53.90	30
Maryland	166,032	47,651	28.70	51	118,381	71.30	2
Massachusetts	163,799	73,905	45.12	27	89,894	54.88	26
Michigan	342,985	170,659	49.76	14	172,326	50.24	39
Minnesota	234,334	91,367	38.99	42	142,967	61.01	11
Mississippi	109,561	58,681	53.56	7	50,880	46.44	46
Missouri	162,625	63,563	39.09	41	99,062	60.91	12
Montana	32,267	17,185	53.26	8	15,082	46.74	45
Nebraska	68,796	31,873	46.33	22	36,923	53.67	31
Nevada	20,617	11,059	53.64	6	9,558	46.36	47
New Hampshire	25,310	7,550	29.83	49	17,760	70.17	4
New Jersey	310,186	114,397	36.88	46	195,789	63.12	7
New Mexico	52,338	20,579	39.32	39	31,759	60.68	14
New York	754,489	224,083	29.70	50	530,406	70.30	3
N. Carolina	430,626	220,222	51.14	12	210,404	48.86	41
N. Dakota	32,637	15,041	46.09	24	17,596	53.91	29
Ohio	412,007	195,085	47.35	19	216,922	52.65	34
Oklahoma	107,395	59,819	55.70	2	47,576	44.30	51
Oregon	123,936	47,368	38.22	43	76,568	61.78	10
Pennsylvania	327,458	167,990	51.30	11	159,468	48.70	42
Rhode Island	19,992	8,218	41.11	37	11,774	58.89	16
S. Carolina	101,615	54,943	54.07	3	46,672	45.93	50
S. Dakota	22,287	8,728	39.16	40	13,559	60.84	13
Tennessee	151,226	73,042	48.30	16	78,184	51.70	37
Texas	623,214	285,619	45.83	26	[illegible]37,595	54.17	27
Utah	100,874	43,043	42.67	3[illegible]	57,831	57.33	22
Vermont	16,903	8,441	49.94	13	8,462	50.06	40
Virginia	269,799	126,104	46.74	21	143,695	53.26	32
Washington	250,802	110,880	44.21	29	1[illegible]9,922	55.79	24
W. Virginia	63,312	26,243	41.45	36	3[illegible],069	58.55	17
Wisconsin	253,495	120,970	47.72	18	132,525	52.28	35
Wyoming	17,694	6,288	35.54	47	11,406	64.46	6
Puerto Rico	96,832	25,670	26.51	52	71,162	73.49	1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The largest percent to which female vocational education enrollment was a part of total vocational education enrollment was 73.49 percent (Puerto Rico). The State with the largest enrollment was Maryland (71.30 percent). The States immediately above and below the mean of 55.50 percent were Georgia (55.74 percent) and Massachusetts (54.88 percent). The States on either side of the median were Massachusetts (54.88 percent) and Texas (54.17 percent). The lowest percent was reported by Alabama (43.83 percent).

Disadvantaged students in vocational education, Table 51. The largest percent that enrollment of disadvantaged students in vocational education was a part of total vocational education enrollment was 53.84 percent (Alaska). The States immediately above and below the mean of 13.90 percent were Montana (13.91 percent) and Virginia (13.65 percent). The States on either side of the median were Texas (14.91 percent) and California (14.17 percent). The lowest percent was reported by Colorado (1.53 percent).

Table 51 - Enrollment of Disadvantaged Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1971-72

States	Total Vocational Education Enrollment	Total Disadvantaged Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	11,559,349[1]	1,606,558	13.90	
Alabama	166,498	27,396	16.45	18
Alaska	20,946	11,278	53.84	1
Arizona	103,644	12,075	11.65	33
Arkansas	115,883	32,905	28.40	7
California	1,233,920	174,888	14.17	27
Colorado	101,521	1,549	1.53	52
Connecticut	175,036	53,897	30.79	6
Delaware	43,427	11,108	25.58	9
Dist. of C.	10,813	4,000	36.99	5
Florida	604,878	94,983	15.70	23
Georgia	305,604	76,539	25.05	11
Hawaii	45,100	8,663	19.21	15
Idaho	33,455	1,658	4.96	44
Illinois	1,379,714	65,823	4.77	45
Indiana	154,556	4,619	2.99	50
Iowa	133,442	17,920	13.43	30
Kansas	105,029	9,298	8.85	36
Kentucky	164,869	25,910	15.72	22
Louisiana	176,387	69,050	39.15	4
Maine	29,872	625[2]	2.09	51
Maryland	215,314	32,863	15.26	24
Massachusetts	163,799	6,948	4.24	48
Michigan	342,985	19,426	5.66	42
Minnesota	301,451	9,801	3.25	49
Mississippi	115,285	8,221	7.13	40
Missouri	170,127	12,483	7.34	38
Montana	34,184	4,754	13.91	28
Nebraska	73,857	8,075	10.93	34
Nevada	21,935	2,612	11.91	31
New Hampshire	35,174	1,943	5.52	43
New Jersey	310,186	23,035	7.43	37
New Mexico	57,018	24,414	42.82	2
New York	919,921	235,844	25.64	8
N. Carolina	487,393	48,211	9.89	35
N. Dakota	32,637	8,030	24.60	12
Ohio	447,157	70,733	15.82	20
Oklahoma	108,018	27,451	25.41	10
Oregon	134,674	21,196	15.74	21
Pennsylvania	327,458	23,712	7.24	39
Rhode Island	19,992	2,855	14.28	26
S. Carolina	111,142	19,592	17.63	16
S. Dakota	26,370	4,344	16.47	17
Tennessee	152,761	32,498	21.27	13
Texas	647,879	96,582	14.91	25
Utah	115,187	18,382	15.96	19
Vermont	16,953	3,385	19.97	14
Virginia	336,383	45,909	13.65	29
Washington	257,836	10,946	4.25	46
W. Virginia	63,502	2,702	4.25	47
Wisconsin	253,495	15,892	6.27	41
Wyoming	19,786	2,314	11.70	32
Puerto Rico	134,896	57,221	42.42	3

[1] Includes some students below grade 9.

[2] This figure does not include some students enrolled in regular classes that make use of disadvantaged funds.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Handicapped students in vocational education, Table 52. The greatest percent to which enrollment of handicapped students in vocational education was a part of total vocational education enrollment was 11.71 percent (Delaware). The States immediately above and below the mean of 1.91 percent were Rhode Island (1.96 percent) and Washington (1.88 percent). The States on either side of the median were Rhode Island (1.96 percent) and Minnesota (1.75 percent). The lowest percent was 0.36 percent, Michigan.

Table 52 - Enrollment of Handicapped Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1971-72

States	Total Vocational Education Enrollment	Total Handicapped Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	11,559,349[1]	220,745	1.91	
Alabama	166,498	2,720	1.63	30
Alaska	20,946	671	3.20	10
Arizona	103,644	1,171	1.13	42
Arkansas	115,883	3,442	2.97	12
California	1,233,920	17,248	1.40	38
Colorado	101,521	2,549	2.51	17
Connecticut	175,036	1,125	.64	49
Delaware	43,427	5,084	11.71	1
Dist. of C.	10,813	310	2.87	13
Florida	604,878	9,502	1.57	32
Georgia	305,604	20,908	6.84	3
Hawaii	45,100	1,414	3.14	11
Idaho	33,455	198	.59	50
Illinois	1,379,714	13,894	1.01	43
Indiana	154,556	1,091	.71	47
Iowa	133,442	2,256	1.69	28
Kansas	105,029	3,904	3.72	7
Kentucky	164,869	3,665	2.22	20
Louisiana	176,387	1,163	.66	48
Maine	29,872	291	.97	45
Maryland	215,314	7,908	3.67	8
Massachusetts	163,799	2,669	1.63	31
Michigan	342,985	1,234	.36	52
Minnesota	301,451	5,271	1.75	27
Mississippi	115,285	2,584	2.24	18
Missouri	170,127	3,695	2.17	21
Montana	34,184	974	2.85	14
Nebraska	73,857	2,092	2.83	15
Nevada	21,935	94	.43	51
New Hampshire	35,174	357	1.01	44
New Jersey	310,186	4,517	1.46	35
New Mexico	57,018	1,279	2.24	19
New York	919,921	7,901	.86	46
N. Carolina	487,393	7,431	1.52	33
N. Dakota	32,637	884	2.71	16
Ohio	447,157	19,238	4.30	4
Oklahoma	108,018	8,580	7.94	2
Oregon	134,674	1,917	1.42	36
Pennsylvania	327,458	6,631	2.02	23
Rhode Island	19,992	392	1.96	25
S. Carolina	111,142	4,232	3.81	6
S. Dakota	26,370	1,026	3.89	5
Tennessee	152,761	5,579	3.65	9
Texas	647,879	12,972	2.00	24
Utah	115,187	1,604	1.39	39
Vermont	16,953	363	2.14	22
Virginia	336,383	5,658	1.68	29
Washington	257,836	4,860	1.88	26
W. Virginia	63,502	895	1.41	37
Wisconsin	253,495	3,316	1.31	40
Wyoming	19,786	294	1.49	34
Puerto Rico	134,896	1,692	1.25	41

[1] Includes some students below grade 9.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

SMSAs and Other Areas

Enrollment in vocational education in SMSAs (Standard Metropolitan Statistical Areas) is shown in Table 53. The largest percentage of a State's metropolitan population enrolled in vocational education was 9.41 percent (Illinois). The States immediately above and below the mean of 4.82 percent were Arkansas (4.84 percent) and New Jersey (4.54 percent). The State at the median was Maine (3.90 percent). The lowest percentage was shown by Alaska, Vermont, and Wyoming (0.00 percent).

Table 53 - Total Enrollment in Vocational Education in Metropolitan Areas (Standard Metropolitan Statistical Areas) as a Percent of Total Metropolitan Population, 1971-72

States	Total SMSA Population	Total SMSA Vocational Education Enrollment	SMSA Vocational Education Enrollment as a Percent of Total SMSA Population	Rank Order
U.S. TOTAL	139,420,714	6,714,881[1]	4.82	
Alabama	1,801,095	62,428	3.47	32
Alaska	0	0	0.00	49
Arizona	1,321,092	71,500	5.41	13
Arkansas	595,030	28,825	4.84	19
California	18,500,006	1,058,067	5.72	12
Colorado	1,581,739	67,224	4.25	23
Connecticut	2,504,802	129,290	5.16	15
Delaware	385,856	25,125	6.51	9
Dist. of C.	756,510	10,813	1.43	48
Florida	4,656,993	337,143	7.24	3
Georgia	2,280,230	156,911	6.88	7
Hawaii	629,176[2]	34,021	5.41	14
Idaho	112,230	3,580	3.19	37
Illinois	8,903,065	837,828	9.41	1
Indiana	3,213,598	77,277	2.40	44
Iowa	1,005,569	29,572	2.94	40
Kansas	949,181	34,617	3.65	28
Kentucky	1,288,024	38,548	2.99	39
Louisiana	1,996,197	62,646	3.14	38
Maine	214,099	8,342	3.90	26
Maryland	3,307,337	114,738	3.47	33
Massachusetts	4,817,915	136,763	2.84	42
Michigan	6,806,151	273,106	4.01	25
Minnesota	2,165,029	129,624	5.99	11
Mississippi	393,488	14,181	3.60	30
Missouri	2,997,071	82,434	2.75	43
Montana	169,171	7,422	4.39	22
Nebraska	634,260	22,143	3.49	31
Nevada	394,356	13,478	3.42	34
New Hampshire	201,693	3,014	1.49	47
New Jersey	5,511,330	250,474	4.54	20
New Mexico	315,774	19,401	6.14	10
New York	15,771,192	770,200	4.88	18
N. Carolina	1,896,423	132,085	6.96	5
N. Dakota	73,653	3,612	4.90	17
Ohio	8,272,512	321,662	3.89	27
Oklahoma	1,281,485	41,313	3.22	36
Oregon	1,280,691	85,082	6.64	8
Pennsylvania	9,365,552	180,777	1.93	46
Rhode Island	801,745	17,976	2.24	45
S. Carolina	1,017,254	29,485	2.90	41
S. Dakota	95,209	3,433	3.61	29
Tennessee	1,917,695	62,872	3.28	35
Texas	8,234,458	364,924	4.43	21
Utah	821,689	71,071	8.65	2
Vermont	0	0	0.00	50
Virginia	2,846,034	201,781	7.09	4
Washington	2,248,837	155,441	6.91	6
W. Virginia	545,243	27,360	5.02	16
Wisconsin	2,542,975	105,274	4.14	24
Wyoming	0	0	0.00	51
Puerto Rico	NA	NA	NA	NA

[1] Includes some students below grade 9.

[2] This figure has been amended to 645,307 but is not used in this table or the following population tables because all characteristic data are not available in amended form.

Source: U.S. Office of Education Form 3138, Section IV, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-A1, U.S. Summary.

Enrollment in vocational education in central cities, Table 54. The State with the largest percent of its central city population enrolled in vocational education was Utah (11.10 percent). The States immediately above and below the mean of 4.72 percent were South Dakota (4.74 percent) and New York (4.47 percent). The State at the median was Rhode Island (3.76 percent). The lowest percentage was shown by Alaska, Hawaii, Vermont and Wyoming (0.00 percent).

Table 54 - Total Enrollment in Vocational Education in Central Cities as a Percent of Total Central City Population, 1971-72

States	Total Central City Population	Total Central City Vocational Education Enrollment	Central City Vocational Education Enrollment as a Percent of Total Central City Population	Rank Order
U.S. TOTAL	63,796,943	3,013,871[1]	4.72	
Alabama	881,825	29,733	3.37	33
Alaska	0	0	0.00	48
Arizona	844,495	40,130	4.75	20
Arkansas	334,396	12,332	3.69	28
California	7,238,502	501,627	6.93	9
Colorado	747,191	35,908	4.81	19
Connecticut	1,066,941	55,293	5.18	17
Delaware	80,386	2,636	3.28	34
Dist. of C.	756,510	10,813	1.43	47
Florida	1,945,662	166,927	8.58	4
Georgia	1,024,400	113,346	11.06	2
Hawaii	324,871	0	0.00	49
Idaho	74,990	2,834	3.78	25
Illinois	4,075,563	352,552	8.65	3
Indiana	1,789,622	38,637	2.16	42
Iowa	631,666	24,242	3.84	24
Kansas	401,565	28,537	7.11	8
Kentucky	549,183	17,710	3.22	35
Louisiana	1,142,809	41,011	3.59	31
Maine	129,266	6,235	4.82	18
Maryland	905,759	49,259	5.44	15
Massachusetts	1,726,298	55,312	3.20	36
Michigan	2,468,063	64,094	2.60	41
Minnesota	928,411	68,068	7.33	7
Mississippi	243,245	3,965	1.63	44
Missouri	1,375,686	39,072	2.84	39
Montana	121,672	6,558	5.39	16
Nebraska	496,846	18,114	3.65	30
Nevada	198,650	10,897	5.49	13
New Hampshire	143,574	2,167	1.51	46
New Jersey	1,166,781	86,773	7.44	6
New Mexico	243,751	19,401	7.96	5
New York	9,311,018	416,654	4.47	22
N. Carolina	955,746	14,749	1.54	45
N. Dakota	53,365	2,908	5.45	14
Ohio	3,429,005	143,805	4.19	23
Oklahoma	761,540	23,921	3.14	38
Oregon	527,261	35,455	6.72	10
Pennsylvania	3,372,377	95,122	2.82	40
Rhode Island	339,891	12,772	3.76	26
S. Carolina	241,695	14,410	5.96	11
S. Dakota	72,488	3,433	4.74	21
Tennessee	1,353,336	42,770	3.16	37
Texas	5,394,954	109,762	2.03	43
Utah	324,223	35,991	11.10	1
Vermont	0	0	0.00	50
Virginia	1,124,889	66,896	5.95	12
Washington	909,550	33,648	3.70	27
W. Virginia	221,139	7,676	3.47	32
Wisconsin	1,345,887	49,716	3.69	29
Wyoming	0	0	0.00	51
Puerto Rico	NA	NA	NA	NA

[1] Includes some students below grade 9.

Source: U.S. Office of Education Form 3138, Section IV, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-A1, U.S. Summary.

Enrollment in vocational education in non-SMSA areas, Table 55. The largest percentage of a State's non-SMSA population which was enrolled in vocational education was 24.51 percent (Illinois). The States immediately above and below the mean of 7.03 percent were Arizona (7.11 percent) and Alaska (6.97 percent). The State at the median was New Hampshire (6.00 percent). The lowest percentage was shown by the District of Columbia (0.00 percent), but the State of Georgia also had a small percent (0.41 percent).

Table 55 - Total Enrollment in Vocational Education in Non-SMSA Areas as a Percent of Total Non-SMSA Population, 1971-72

States	Total Non-SMSA Population	Total Non-SMSA Vocational Education Enrollment	Total Non-SMSA Vocational Education Enrollment as a Percent of Total Non-SMSA Population	Rank Order
U.S. TOTAL	63,793,732	4,486,820[1]	7.03	
Alabama	1,643,070	104,070	6.33	21
Alaska	300,382	20,946	6.97	17
Arizona	452,328	32,144	7.11	16
Arkansas	1,328,265	87,058	6.55	19
California	1,453,128	175,853	12.10	4
Colorado	625,520	33,543	5.36	30
Connecticut	526,907	45,746	8.68	11
Delaware	162,248	18,302	11.28	5
Dist. of C.	0	0	0.00	51
Florida	2,132,450	267,735	12.56	3
Georgia	2,309,345	9,454	.41	50
Hawaii	139,385[2]	11,079	7.95	13
Idaho	600,337	29,875	4.98	37
Illinois	2,210,911	541,886	24.51	1
Indiana	1,980,071	77,279	3.90	42
Iowa	1,818,807	79,628	4.38	40
Kansas	1,297,397	70,412	5.43	29
Kentucky	1,930,682	126,321	6.54	20
Louisiana	1,645,109	113,741	6.91	18
Maine	777,949	21,530	2.77	48
Maryland	615,062	51,165	8.32	12
Massachusetts	871,255	27,036	3.10	46
Michigan	2,068,932	69,879	3.38	45
Minnesota	1,639,942	171,827	10.48	7
Mississippi	1,823,424	101,104	5.55	27
Missouri	1,679,430	80,191	4.77	38
Montana	525,238	26,762	5.10	36
Nebraska	849,233	51,714	6.09	23
Nevada	94,382	8,457	8.96	9
New Hampshire	535,988	32,160	6.00	26
New Jersey	1.656,834	59,712	3.60	44
New Mexico	700,226	38,155	5.45	28
New York	2,465,775	149,721	6.07	24
N. Carolina	3,185,636	355,308	11.15	6
N. Dakota	544,108	29,025	5.33	31
Ohio	2,379,505	125,495	5.27	33
Oklahoma	1,277,744	66,705	5.22	34
Oregon	810,694	49,592	6.12	22
Pennsylvania	2,428,357	146,681	6.04	25
Rhode Island	144,980	2,018	1.39	49
S. Carolina	1,573,262	81,657	5.19	35
S. Dakota	570,298	22,937	4.02	41
Tennessee	2,005,992	89,889	4.48	39
Texas	2,962,272	282,955	9.55	8
Utah	237,584	44,116	18.57	2
Vermont	444,330	16,903	3.80	43
Virginia	1,802,460	134,602	7.47	15
Washington	1,160,332	102,395	8.82	10
W. Virginia	1,198,994	36,142	3.01	47
Wisconsin	1,874,756	148,221	7.91	14
Wyoming	332,416	17,694	5.32	32
Puerto Rico	NA	NA	NA	NA

[1] Includes some students below grade 9.

[2] This figure has been amended to 145,106 but is not used in this table or the following population tables because all characteristic data is not available in amended form.

Source: U.S. Office of Education Form 3138, Section IV, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-A1, U.S. Summary.

Youth Groups in Vocational Education

A number of youth groups are providing exemplary leadership activities and experiences for students enrolled in vocational education programs. These youth groups are sponsored by national organizations with State and local chapters, and feature many student planned, supervised, and conducted activities. Although faculty and other adults lend assistance to these groups, the focus is upon the student and his personal growth.

Total enrollment in youth activities in vocational education is approximately two million. Not all States were able to report their youth organization membership at the time Project Bassline data were obtained for 1971-72. Caution should be exercised in drawing conclusions for the nation as a whole based upon the following tables, which represent roughly a fifty percent sample of the States.

Future Farmers of America (FFA). Table 56 indicates that for the twenty-three States reporting, three-fourths of the students enrolled in secondary and post-secondary education belong to the youth organization of agriculture.

Table 56 - Student Membership in FFA as a Percent of Total Secondary and Post-Secondary Enrollment in Agriculture in Twenty-Three States, 1971-72

States	Total Secondary and Post-Secondary Enrollment in Agriculture	Total Membership in FFA	Percent of Secondary and Post-Secondary Agriculture Students that are Members in FFA
TOTAL	296,659	224,451	75.66
Arizona	4,131	2,394	57.95
Arkansas	16,796	14,486	86.25
Connecticut	1,600	929	58.06
Florida	24,329	12,000[1]	49.32
Georgia	25,119	19,277	76.74
Idaho	4,882	3,431	70.28
Kentucky	15,600	14,434	92.53
Minnesota	19,523	14,133	72.39
Mississippi	12,265	8,438	68.80
Montana	3,191	2,200	68.94
Nebraska	7,202	5,506	76.45
Nevada	1,399	542	38.74
New Mexico	4,037	3,309	81.97
N. Carolina	30,919	21,531	69.64
N. Dakota	4,872	4,051	83.15
Oklahoma	18,451	17,000	92.14
Oregon	4,297	4,561	106.14
Rhode Island	1,075	327	30.42
Tennessee	20,150	16,743	83.09
Texas	56,902	52,000[1]	91.39
Utah	4,884	3,499	71.64
Vermont	1,261	704	55.83
Washington	13,774	2,956	21.46

[1] Only estimated figures are available from these States.

Source: "Annual Descriptive Report," U.S. Office of Education Form 3140, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, various States.

Future Homemakers of America (FHA). Twenty-four States and Puerto Rico reported that roughly one-third of the total secondary and post-secondary students were enrolled in the youth activities supplementary to the instructional program in consumer and homemaking education, Table 57.

Table 57 - Student Membership in FHA as a Percent of Total Secondary and Post-Secondary Enrollment in Consumer and Homemaking in Twenty-Four States and Puerto Rico, 1971-72

States	Total Secondary and Post-Secondary Enrollment in Consumer & Homemaking	Total Membership in FHA	Percent of Secondary and Post-Secondary Consumer & Homemaking Enrollment that are Members in FHA
TOTAL	882,649	282,772	32.04
Arizona	20,847	1,773	8.50
Arkansas	30,976	19,581	63.21
Colorado	13,956	3,092	22.16
Connecticut	25,854	315	1.22
Florida	110,784	10,000	9.03
Georgia	58,142	20,383	35.06
Idaho	10,768	2,154	20.00
Kentucky	39,059	16,341	41.84
Maine	2,718	1,405	51.69
Massachusetts	13,269	300	2.26
Minnesota	64,658	19,714	30.48
Mississippi	29,192	9,997	34.25
Nebraska	15,652	4,853	31.01
Nevada	3,408	745	21.86
New Mexico	17,026	2,788	16.37
N. Carolina	59,036	21,389	36.23
N. Dakota	9,096	4,328	47.58
Oklahoma	23,759	16,541	69.62
Oregon	30,633	1,597	5.21
Tennessee	46,259	26,239	56.72
Texas	172,476	66,899	38.79
Utah	26,336	4,013	15.24
Vermont	5,361	583	10.87
Virginia	35,662	13,329	37.38
Puerto Rico	17,712	14,413	81.37

Source: "Annual Descriptive Report," U.S. Office of Education Form 3140, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, various States.

Distributive Education Clubs of America (DECA). Table 58 indicates twenty-one States and Puerto Rico reported that half of the students enrolled in secondary and post-secondary distributive education programs were members of the Distributive Education Clubs of America. Membership in DECA, as in other youth organizations, depends in a great measure upon the enthusiasm of adult sponsors who provide the environment in which youth activities can grow.

Table 58 - Student Membership in DECA as a Percent of Total Secondary and Post-Secondary Enrollment in Distributive Education in Twenty-One States and Puerto Rico, 1971-72

States	Total Secondary and Post-Secondary Enrollment in Distributive Education	Total Membership in DECA	Percent of Secondary and Post-Secondary Distributive Education Enrollment that are Members in DECA
TOTAL	126,791	65,467	51.63
Arizona	8,936	2,630	29.43
Arkansas	1,966	1,267	64.45
Colorado	5,911	1,850	31.30
Connecticut	4,038	1,800	44.58
Florida	22,971	4,781	20.81
Idaho	1,213	550	45.34
Kentucky	6,187	3,985	64.41
Massachusetts	5,096	1,400	27.47
Minnesota	8,792	4,800	54.60
Montana	907	807	88.97
Nebraska	3,499	1,637	46.78
Nevada	918	275	29.96
New Mexico	1,643	1,180	71.82
N. Carolina	11,094	7,536	67.93
Oklahoma	3,187	2,633	82.62
Oregon	3,429	800	23.33
S. Carolina	4,542	1,797	39.56
Tennessee	5,315	4,900	92.19
Texas	19,531	16,050	82.18
Utah	3,647	1,301	35.67
Vermont	277	198	71.48
Puerto Rico	3,692	3,290	89.11

Source: "Annual Descriptive Report," U.S. Office of Education Form 3140, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, various States.

Future Business Leaders of America (FBLA). The Future Business Leaders of America is sponsored by the National Business Education Association and the National Education Association. Like other national youth organizations FBLA has State and local chapters. Unlike other organizations, college chapters may be organized under the title of Phi Beta Lambda. Table 59 shows the distribution of membership in seventeen States and Puerto Rico.

Table 59 - Student Membership in FBLA as a Percent of Total Secondary and Post-Secondary Enrollment in Business and Office Education in Seventeen States and Puerto Rico, 1971-72

States	Total Secondary and Post-Secondary Enrollment in Business and Office Education	Total Membership in FBLA	Percent of Secondary and Post-Secondary Business and Office Education Enrollment that are Members in FBLA
TOTAL	430,886	45,996	10.67
Arizona	18,307	230[1]	1.26
Arkansas	7,116	4,085	57.41
Connecticut	49,161	700	1.42
Florida	57,944	4,000	9.64
Georgia	67,070	7,892	11.77
Kentucky	15,344	4,643	30.26
Mississippi	2,705	550	20.33
Nebraska	6,938	1,021	14.72
Nevada	6,080	110	1.81
N. Carolina	22,099	4,400	19.91
N. Dakota	4,339	353	8.14
Oklahoma	6,161	2,605	42.28
Oregon	22,159	350	1.58
Utah	24,743	210	.85
Vermont	1,820	104	5.71
Virginia	48,104	5,630	11.70
Washington	52,148	1,084	2.08
Puerto Rico	18,648	8,029	43.06

[1] Organization in Arizona is VOCA (Vocational Office Chapter of America).

Source: "Annual Descriptive Report," U.S. Office of Education Form 3140, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, various States.

Vocational Industrial Clubs of America (VICA). VICA was founded in 1965 and, in a very short time, has developed youth activities throughout the Nation among industrial education students. Table 60 shows membership data for seventeen States and Puerto Rico.

Like other national organizations VICA holds national, State, and regional conferences and a variety of competitive exercises demonstrating student competencies developed in classes. However, the focus is upon development of leadership qualities among students.

Table 60 - Student Membership in VICA as a Percent of Total Secondary and Post-Secondary Enrollment in Trade & Industry in Seventeen States and Puerto Rico, 1971-72

States	Total Secondary and Post-Secondary Enrollment in Trade & Industry	Total Membership in VICA	Percent of Secondary and Post-Secondary Trade & Industry Enrollment that are Members in VICA
TOTAL	344,998	72,006	20.87
Arizona	16,375	1,050	6.41
Arkansas	5,268	1,477	28.04
Florida	47,516	2,427	5.11
Georgia	21,866	4,264	19.50
Idaho	2,542	31	1.22
Kentucky	16,518	5,730	34.69
Mississippi	11,192	755	6.75
Nebraska	7,166	140	1.95
Nevada	5,348	131	2.45
N. Carolina	56,087	10,000	17.83
Oregon	16,284	435	2.67
Tennessee	21,704	7,257	33.44
Texas	53,809	25,225	46.88
Utah	14,007	512	3.66
Vermont	2,616	435	16.63
Virginia	23,732	7,100	29.92
Washington	2,710	506	18.67
Puerto Rico	20,258	4,531	22.37

Source: "Annual Descriptive Report," U.S. Office of Education Form 3140, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, various States.

FINANCIAL

A second parameter in the treatment of the scope of vocational education for Fiscal 1972 is concerned with expenditures -- that is, the amount of public funds spent on the vocational education program.

An interesting feature of the financing of vocational education is that Federal financing, a substantial sum, serves to stimulate State and local funding. While the legal requirement is for the matching of each Federal dollar with at least one dollar from State and/or local sources, the minimum matching requirement has always been exceeded. In the following pages, several aspects of the financing of vocational education will be discussed, such as matching ratios, per pupil expenditures, and sums expended for the occupational areas and the three levels of vocational education.

Total Expenditures in Vocational Education

The financing of vocational education comes from three sources -- Federal dollars through Congressional appropriation, State dollars through State legislatures, and local dollars through school boards or local educational agencies. Expenditures from these three sources are reported herein as Federal expenditures, State expenditures, and local expenditures.

The fact is that almost all monies are expended at the local level. For example, teachers' salaries, monies for instructional equipment and supplies, and costs for construction of facilities are almost always paid by local educational agencies to local persons and businesses. Large portions of these expenditures are reimburesd by State educational agencies from State-level funds; a portion of the State expenditures is reimbursed by Federal funds. On the following pages, some of the ways in which funds were expended in Fiscal year 1972 are examined.

Total dollar expenditures. In Fiscal year 1972, the total of dollars expended -- including Federal, State, and local monies -- for all of vocational education was $2,654,338,633. For vocational education this was the largest sum ever expended, the largest Federal appropriation and expenditure, and the largest sum ever expended by States and local educational agencies.

The expenditure of $464,487,460 of Federal monies was 17.5 percent of the total in the Nation for all of vocational education; Table 61 displays these data as well as the way in which the States expended Federal monies.

Table 61 - Federal Vocational Education Expenditures as a Percent of Total Vocational Education Expenditures, 1971-72

States	Total Vocational Education Expenditures	Federal Vocational Education Expenditures	Federal Vocational Education Expenditures as a Percent of Total Vocational Expenditures	Rank Order
U.S. TOTAL	2,654,338,633	464,487,460	17.50	
Alabama	37,968,073	10,440,569	27.50	17
Alaska	4,965,839	911,311	18.35	31
Arizona	17,702,074	4,280,991	24.18	23
Arkansas	16,206,618	5,383,869	33.22	6
California	259,756,320	37,514,372	14.44	43
Colorado	28,923,050	4,902,324	16.95	34
Connecticut	39,124,769	3,872,558	9.90	50
Delaware	8,660,371	1,195,561	13.80	44
Dist. of C.	NA	NA	NA	NA
Florida	94,466,988	14,776,776	15.64	42
Georgia	52,264,269	15,285,261	29.25	13
Hawaii	7,806,369	2,261,254	28.97	14
Idaho	7,307,127	2,418,909	33.10	7
Illinois	189,099,311	19,847,913	10.50	47
Indiana	35,810,152	11,607,997	32.42	9
Iowa	34,530,677	6,323,342	18.31	32
Kansas	19,623,161	5,236,133	26.68	21
Kentucky	34,479,088	9,282,385	26.92	20
Louisiana	32,175,081	10,493,320	32.61	8
Maine	15,796,302	2,582,996	16.35	37
Maryland	67,027,531	7,062,959	10.54	46
Massachusetts	128,815,407	10,243,249	7.95	51
Michigan	54,056,557	12,704,063	23.50	25
Minnesota	56,385,955	8,957,851	15.89	40
Mississippi	26,380,372	7,431,764	28.17	15
Missouri	45,208,574	10,025,232	22.18	27
Montana	8,569,050	2,181,716	25.46	22
Nebraska	12,512,758	3,691,407	29.50	12
Nevada	4,302,443	1,205,099	28.01	16
New Hampshire	7,492,673	1,686,373	22.51	26
New Jersey	42,542,030	13,574,480	31.91	11
New Mexico	10,191,833	3,253,903	31.93	10
New York	328,653,372	33,816,266	10.29	48
N. Carolina	99,029,216	15,634,072	15.79	41
N. Dakota	6,059,333	2,127,346	35.11	5
Ohio	139,092,332	22,497,469	16.17	38
Oklahoma	28,551,802	7,787,704	27.28	18
Oregon	27,512,230	5,209,528	18.94	30
Pennsylvania	172,056,004	27,661,281	16.08	39
Rhode Island	8,849,940	1,760,944	19.90	29
S. Carolina	24,757,946	9,382,521	37.90	2
S. Dakota	5,444,718	2,134,896	39.21	1
Tennessee	39,899,987	9,474,245	23.74	24
Texas	130,240,601	26,193,555	20.11	28
Utah	18,455,058	3,108,991	16.85	35
Vermont	9,355,445	953,379	10.19	49
Virginia	44,987,840	12,243,977	27.22	19
Washington	53,491,851	8,984,173	16.80	36
W. Virginia	14,498,425	5,233,603	36.10	3
Wisconsin	71,469,433	9,190,528	12.86	45
Wyoming	4,632,798	846,273	18.27	33
Puerto Rico	27,149,480	9,610,772	35.40	4

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The manner in which the States spent Federal monies for their secondary, post-secondary, and adult programs -- both the sums expended and the percents to which the sums were part of the total expenditure of the States' Federal monies -- are displayed in Tables 62 and 63.

Table 62 - Total Federal Funds for Secondary, Post-Secondary, and Adult Vocational Education, 1971-72

States	Total Federal Vocational Education Expenditures	Federal Expenditures for Secondary Vocational Education (Rounded)	Federal Expenditures for Post-Secondary Vocational Education (Rounded)	Federal Expenditures for Adult Vocational Education (Rounded)
U.S. TOTAL	464,487,460	294,184,000	122,311,000	43,966,000
Alabama	10,440,569	8,517,000	1,771,000	152,000
Alaska	911,311[1]	715,000	130,000	64,000
Arizona	4,280,991	2,557,000	1,030,000	694,000
Arkansas	5,383,869	2,827,000	2,341,000	216,000
California	37,514,372	22,362,000	11,365,000	3,787,000
Colorado	4,902,324	2,989,000	1,706,000	208,000
Connecticut	3,872,558[2]	2,349,000	536,000	319,000
Delaware	1,195,561	1,017,000	178,000	0
Dist. of C.	NA	NA	NA	NA
Florida	14,776,776	9,853,000	4,499,000	426,000
Georgia	15,285,261	8,111,000	6,739,000	435,000
Hawaii	2,261,254	902,000	1,301,000	58,000
Idaho	2,418,909	996,000	1,378,000	45,000
Illinois	19,847,913	14,709,000	3,496,000	1,641,000
Indiana	11,607,997	9,312,000	1,775,000	521,000
Iowa	6,323,342	1,948,000	4,002,000	373,000
Kansas	5,236,133	2,997,000	1,777,000	462,000
Kentucky	9,282,385	5,334,000	3,207,000	741,000
Louisiana	10,493,320	6,860,000	2,467,000	1,165,000
Maine	2,582,996	1,703,000	753,000	127,000
Maryland	7,062,959	5,846,000	1,032,000	185,000
Massachusetts	10,243,249	8,317,000	1,387,000	539,000
Michigan	12,704,063	9,609,000	2,542,000	553,000
Minnesota	8,957,851	3,287,000	5,134,000	537,000
Mississippi	7,431,764	4,510,000	2,536,000	385,000
Missouri	10,025,232	7,692,000	1,872,000	461,000
Montana	2,181,716	1,075,000	1,094,000	13,000
Nebraska	3,691,407	2,613,000	969,000	110,000
Nevada	1,205,099	896,000	193,000	117,000
New Hampshire	1,686,373	1,276,000	157,000	253,000
New Jersey	13,574,480	11,438,000	1,814,000	323,000
New Mexico	3,253,903	1,974,000	1,127,000	152,000
New York	33,816,266[3]	17,040,000	3,927,000	9,503,000
N. Carolina	15,634,072	10,543,000	5,091,000	0
N. Dakota	2,127,346	1,282,000	621,000	224,000
Ohio	22,497,469	12,988,000	3,314,000	6,195,000
Oklahoma	7,787,704	5,277,000	1,952,000	558,000
Oregon	5,209,528	2,775,000	2,176,000	256,000
Pennsylvania	27,661,281	21,667,000	4,807,000	1,187,000
Rhode Island	1,760,944	1,321,000	183,000	255,000
S. Carolina	9,382,521	8,166,000	1,070,000	147,000
S. Dakota	2,134,896	1,338,000	746,000	50,000
Tennessee	9,474,245	5,088,000	3,560,000	826,000
Texas	26,193,555	13,472,000	9,050,000	3,672,000
Utah	3,108,991	1,603,000	1,152,000	355,000
Vermont	953,379	814,000	138,000	0
Virginia	12,243,977	8,837,000	3,106,000	301,000
Washington	8,984,173	3,359,000	4,889,000	737,000
W. Virginia	5,233,603	4,138,000	771,000	325,000
Wisconsin	9,190,528	3,729,000	2,931,000	2,531,000
Wyoming	846,273	534,000	291,000	21,000
Puerto Rico	9,610,772	5,622,000	2,228,000	1,761,000

[1] Total by level is $2,000 short of total Federal expenditures.

[2] Total by level is $492,117 short of total Federal expenditures because Ancillary Services were not broken out by grade level.

[3] Total by level is $3,346,000 short of total Federal expenditures because of rounding and ancillary services and research were not broken out by grade level.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C. FY 1972.

Briefly, the tables show that of the over $464 million of Federal money, the States spent $294,184,000 or 63.3 percent of total Federal monies for secondary vocational education. The States spent $122,311,000 or 26.3 percent of total Federal monies for post-secondary vocational education. And, of total Federal monies, the States spent $43,966,000 or 9.5 percent for adult vocational education.

Table 63 - Total Federal Funds for Secondary, Post-Secondary, and Adult Vocational Education as a Percent of Total Federal Expenditures for All Vocational Education Programs, 1971-72

States	Total Federal Vocational Education Expenditures	Secondary Federal Vocational Education Expenditures as a Percent of Total Federal Expenditures	Rank Order	Post-Secondary Federal Vocational Education Expenditures as a Percent of Total Federal Expenditures	Rank Order	Adult Federal Vocational Education Expenditures as a Percent of Total Federal Expenditures	Rank Order
U.S. TOTAL	464,487,460	63.34		26.33		9.47	
Alabama	10,440,569	81.58	6	16.96	36	1.46	47
Alaska	911,311	78.46	10	14.27	44	7.02	21
Arizona	4,280,991	59.73	32	24.06	29	16.21	5
Arkansas	5,383,869	52.51	41	43.48	8	4.01	35
California	37,514,372	59.61	33	30.30	23	10.09	12
Colorado	4,902,324	60.97	27	34.80	13	4.24	34
Connecticut	3,872,558	60.66	30	13.84	45	8.24	17
Delaware	1,195,561	85.06	3	14.89	39	0.00	49
Dist. of C.	NA	NA	NA	NA	NA	NA	NA
Florida	14,776,776	66.68	22	30.45	22	2.88	37
Georgia	15,285,261	53.06	40	44.09	7	2.85	38
Hawaii	2,261,254	39.89	48	57.53	2	2.56	40
Idaho	2,418,909	41.18	46	56.97	4	1.86	45
Illinois	19,847,913	74.11	17	17.61	34	8.27	16
Indiana	11,607,997	80.22	8	15.29	38	4.49	31
Iowa	6,323,342	30.81	51	63.29	1	5.90	24
Kansas	5,236,133	57.24	37	33.94	19	8.82	14
Kentucky	9,282,385	57.46	36	34.55	15	7.98	19
Louisiana	10,493,320	65.37	24	23.51	30	11.10	10
Maine	2,582,996	65.93	23	29.15	25	4.92	27
Maryland	7,062,959	82.77	5	14.61	42	2.62	39
Massachusetts	10,243,249	81.19	7	13.54	46	5.26	25
Michigan	12,704,063	75.64	14	20.01	32	4.35	32
Minnesota	8,957,851	36.69	50	57.31	3	5.99	23
Mississippi	7,431,764	60.69	28	34.12	18	5.18	26
Missouri	10,025,232	76.73	12	18.67	33	4.60	30
Montana	2,181,716	49.27	45	50.14	6	.60	48
Nebraska	3,691,407	70.79	19	26.25	26	2.98	36
Nevada	1,205,099	74.35	16	16.02	37	9.71	13
New Hampshire	1,686,373	75.67	13	9.31	51	15.00	6
New Jersey	13,574,480	84.26	4	13.36	47	2.38	44
New Mexico	3,253,903	60.67	29	34.64	14	4.67	29
New York	33,816,266	50.39	44	11.61	48	28.10	1
N. Carolina	15,634,072	67.44	21	32.56	20	0.00	50
N. Dakota	2,127,346	60.26	31	29.19	24	10.53	11
Ohio	22,497,469	57.73	35	14.73	40	27.54	3
Oklahoma	7,787,704	67.76	20	25.07	28	7.17	20
Oregon	5,209,528	53.27	39	41.77	9	4.91	28
Pennsylvania	27,661,28[illegible]	78.33	11	17.38	35	4.29	33
Rhode Island	1,760,944	75.02	15	10.39	50	14.48	7
S. Carolina	9,382,521	87.03	1	11.40	49	1.57	46
S. Dakota	2,134,896	62.67	26	34.94	12	2.34	43
Tennessee	9,474,245	53.70	38	37.58	10	8.72	15
Texas	26,193,555	51.43	43	34.55	16	14.02	8
Utah	3,108,991	51.56	42	37.05	11	11.42	9
Vermont	953,379	85.38	2	14.47	43	0.00	51
Virginia	12,243,977	72.17	18	25.37	27	2.46	42
Washington	8,984,173	37.39	49	54.42	5	8.20	18
W. Virginia	5,233,603	79.07	9	14.73	41	6.21	22
Wisconsin	9,190,528	40.57	47	31.89	21	27.54	2
Wyoming	846,273	63.10	25	34.39	17	2.48	41
Puerto Rico	9,610,772	58.50	34	23.18	31	18.32	4

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The result is a $4.71:1 matching ratio of State and local dollars to Federal dollars. The expenditures of Federal and of State and local monies, the matching ratios, and the rank orders of the fifty States, the District of Columbia, and Puerto Rico are shown in Table 64.

Table 64 – Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education, 1971-72

States	State and Local Expenditures for Vocational Education	Federal Expenditures for Vocational Education	Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education	Rank Order
U.S. TOTAL	2,189,851,173	464,487,460	4.71:1	
Alabama	27,527,504	10,440,569	2.64:1	35
Alaska	4,054,528	911,311	4.45:1	21
Arizona	13,421,083	4,280,991	3.14:1	29
Arkansas	10,822,749	5,383,869	2.01:1	46
California	222,241,948	37,514,372	5.92:1	9
Colorado	24,020,726	4,902,324	4.90:1	18
Connecticut	35,252,211	3,872,558	9.10:1	2
Delaware	7,464,810	1,195,561	6.24:1	8
Dist. of C.	NA	NA	NA	NA
Florida	79,690,212	14,776,776	5.39:1	10
Georgia	36,979,008	15,285,261	2.42:1	39
Hawaii	5,545,115	2,261,254	2.45:1	38
Idaho	4,888,218	2,418,909	2.02:1	45
Illinois	169,251,398	19,847,913	8.53:1	5
Indiana	24,202,155	11,607,997	2.08:1	43
Iowa	28,207,335	6,323,342	4.46:1	20
Kansas	14,387,028	5,236,133	2.75:1	31
Kentucky	25,196,703	9,282,385	2.71:1	32
Louisiana	21,681,761	10,493,320	2.07:1	44
Maine	13,213,306	2,582,996	5.12:1	15
Maryland	59,964,572	7,062,959	8.49:1	6
Massachusetts	118,572,158	10,243,249	11.58:1	1
Michigan	41,352,494	12,704,063	3.26:1	27
Minnesota	47,428,104	8,957,851	5.29:1	12
Mississippi	18,948,608	7,431,764	2.55:1	37
Missouri	35,183,342	10,025,232	3.51:1	25
Montana	6,387,334	2,181,716	2.93:1	30
Nebraska	8,821,351	3,691,407	2.39:1	40
Nevada	3,097,344	1,205,099	2.57:1	36
New Hampshire	5,806,300	1,686,373	3.44:1	26
New Jersey	28,967,550	13,574,480	2.13:1	41
New Mexico	6,937,930	3,253,903	2.13:1	42
New York	294,837,106	33,816,266	8.72:1	4
N. Carolina	83,395,144	15,634,072	5.33:1	11
N. Dakota	3,931,987	2,127,346	1.85:1	47
Ohio	116,594,863	22,497,469	5.18:1	14
Oklahoma	20,764,098	7,787,704	2.67:1	33
Oregon	22,302,702	5,209,528	4.28:1	22
Pennsylvania	144,394,723	27,661,281	5.22:1	13
Rhode Island	7,088,996	1,760,944	4.03:1	23
S. Carolina	15,375,425	9,382,521	1.64:1	50
S. Dakota	3,309,822	2,134,896	1.55:1	51
Tennessee	30,425,742	9,474,245	3.21:1	28
Texas	104,047,046	26,193,555	3.97:1	24
Utah	15,346,067	3,108,991	4.94:1	17
Vermont	8,402,066	953,379	8.81:1	3
Virginia	32,743,863	12,243,977	2.67:1	34
Washington	44,507,678	8,984,173	4.95:1	16
W. Virginia	9,264,822	5,233,603	1.77:1	49
Wisconsin	62,278,905	9,190,528	6.78:1	7
Wyoming	3,786,525	846,273	4.47:1	19
Puerto Rico	17,538,708	9,610,772	1.82:1	48

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Per student expenditures for all levels. The per student expenditures for all students in all programs are displayed in Table 65. For the nation, an average of $265.85 was expended for each of the 9,984,416 persons enrolled. Among the States, the expenditures per person ranged from a high of $786.42 (Massachusetts) to a low of $137.15 (New Jersey).

Table 65 - Federal and State/Local Expenditures Per Student in Vocational Education, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Vocational Education Enrollment	Federal and State/ Local Expenditures Per Student in Vocational Education	Rank Order
U.S. TOTAL	2,654,338,633	9,984,416	265.85	
Alabama	37,968,073	157,746	240.69	24
Alaska	4,965,839	20,926	237.30	26
Arizona	17,702,074	102,806	172.19	47
Arkansas	16,206,618	110,224	147.03	50
California	259,756,320	1,221,509	212.65	34
Colorado	28,923,050	101,521	284.90	12
Connecticut	39,124,769	127,609	306.60	10
Delaware	8,660,371	37,323	232.04	27
Dist. of C.	NA	10,813	NA	NA
Florida	94,466,988	511,750	184.60	42
Georgia	52,264,269	289,741	180.38	46
Hawaii	7,806,369	40,142	194.47	40
Idaho	7,307,127	33,146	220.45	32
Illinois	189,099,311	595,879	317.35	9
Indiana	35,810,152	154,556	231.70	28
Iowa	34,530,677	133,442	258.77	20
Kansas	19,623,161	98,819	198.58	38
Kentucky	34,479,088	164,869	209.13	35
Louisiana	32,175,081	176,312	182.49	44
Maine	15,796,302	29,840	529.37	3
Maryland	67,027,531	166,032	403.70	7
Massachusetts	128,815,407	163,799	786.42	1
Michigan	54,056,557	342,985	157.61	49
Minnesota	56,385,955	234,334	240.62	25
Mississippi	26,380,372	109,561	240.78	23
Missouri	45,208,574	162,625	277.99	15
Montana	8,569,050	32,267	265.57	17
Nebraska	12,512,758	68,796	181.88	45
Nevada	4,302,443	20,617	208.68	37
New Hampshire	7,492,673	25,310	296.04	11
New Jersey	42,542,030	310,186	137.15	51
New Mexico	10,191,833	52,338	194.73	39
New York	328,653,372	754,489	435.60	6
N. Carolina	99,029,216	430,626	229.97	29
N. Dakota	6,059,333	32,637	185.66	41
Ohio	139,092,332	412,007	337.59	8
Oklahoma	28,551,802	107,395	265.86	16
Oregon	27,512,230	123,936	221.99	31
Pennsylvania	172,056,004	327,458	525.43	4
Rhode Island	8,849,940	19,992	442.67	5
S. Carolina	24,757,946	101,615	243.64	22
S. Dakota	5,444,718	22,287	244.30	21
Tennessee	39,899,987	151,226	263.84	18
Texas	130,240,601	623,214	208.98	36
Utah	18,455,058	100,874	182.95	43
Vermont	9,355,445	16,903	553.48	2
Virginia	44,987,840	269,799	166.75	48
Washington	53,491,851	250,802	213.28	33
W. Virginia	14,498,425	63,312	229.00	30
Wisconsin	71,469,433	253,495	281.94	13
Wyoming	4,632,798	17,694	261.83	19
Puerto Rico	27,149,480	96,832	280.38	14

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The Federal portion of expenditures per student is displayed on Table 66. On the average, $46.52 of Federal monies was spent for each vocational education student in the Nation. The States allotted various amounts of Federal monies -- from a high of $99.25 per student (Puerto Rico) to a low of $28.87 per student (Florida).

Table 66- Total Federal Vocational Education Expenditures Per Student, 1971-72

States	Total Federal Vocational Education Expenditures	Total Vocational Education Enrollment	Federal Vocational Education Expenditures Per Student	Rank Order
U.S. TOTAL	464,487,460	9,984,416	46.52	
Alabama	10,440,569	157,746	66.19	14
Alaska	911,311	20,926	43.55	36
Arizona	4,280,991	102,806	41.64	40
Arkansas	5,383,869	110,224	48.84	29
California	37,514,372	1,221,509	30.71	49
Colorado	4,902,324	101,521	48.29	30
Connecticut	3,872,558	127,609	30.35	50
Delaware	1,195,561	37,323	32.03	47
Dist. of C.	NA	10,813	NA	NA
Florida	14,776,776	511,750	28.87	51
Georgia	15,285,261	289,741	52.75	28
Hawaii	2,261,254	40,142	56.33	23
Idaho	2,418,909	33,146	72.98	9
Illinois	19,847,913	595,879	33.31	46
Indiana	11,607,997	154,556	75.11	8
Iowa	6,323,342	133,442	47.39	32
Kansas	5,236,133	98,819	52.99	27
Kentucky	9,282,385	164,869	56.30	24
Louisiana	10,493,320	176,312	59.52	20
Maine	2,582,996	29,840	86.56	5
Maryland	7,062,959	166,032	42.54	37
Massachusetts	10,243,249	163,799	62.54	17
Michigan	12,704,063	342,985	37.04	42
Minnesota	8,957,851	234,334	38.23	41
Mississippi	7,431,764	109,561	67.83	11
Missouri	10,025,232	162,625	61.65	19
Montana	2,181,716	32,267	67.61	12
Nebraska	3,691,407	68,796	53.66	26
Nevada	1,205,099	20,617	58.45	21
New Hampshire	1,686,373	25,310	66.63	13
New Jersey	13,574,480	310,186	43.76	35
New Mexico	3,253,903	52,338	62.17	18
New York	33,816,266	754,489	44.82	34
N. Carolina	15,634,072	430,626	36.31	43
N. Dakota	2,127,346	32,637	65.18	15
Ohio	22,497,469	412,007	54.60	25
Oklahoma	7,787,704	107,395	72.51	10
Oregon	5,209,528	123,936	42.03	38
Pennsylvania	27,661,281	327,458	84.47	6
Rhode Island	1,760,944	19,992	88.08	4
S. Carolina	9,382,521	101,615	92.33	3
S. Dakota	2,134,896	22,287	95.79	2
Tennessee	9,474,245	151,226	62.65	16
Texas	26,193,555	623,214	42.03	39
Utah	3,108,991	100,874	30.82	48
Vermont	953,379	16,903	56.40	22
Virginia	12,243,977	269,799	45.38	33
Washington	8,984,173	250,802	35.82	45
W. Virginia	5,233,603	63,312	82.66	7
Wisconsin	9,190,528	253,495	36.26	44
Wyoming	846,273	17,694	47.83	31
Puerto Rico	9,610,772	96,832	99.25	1

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

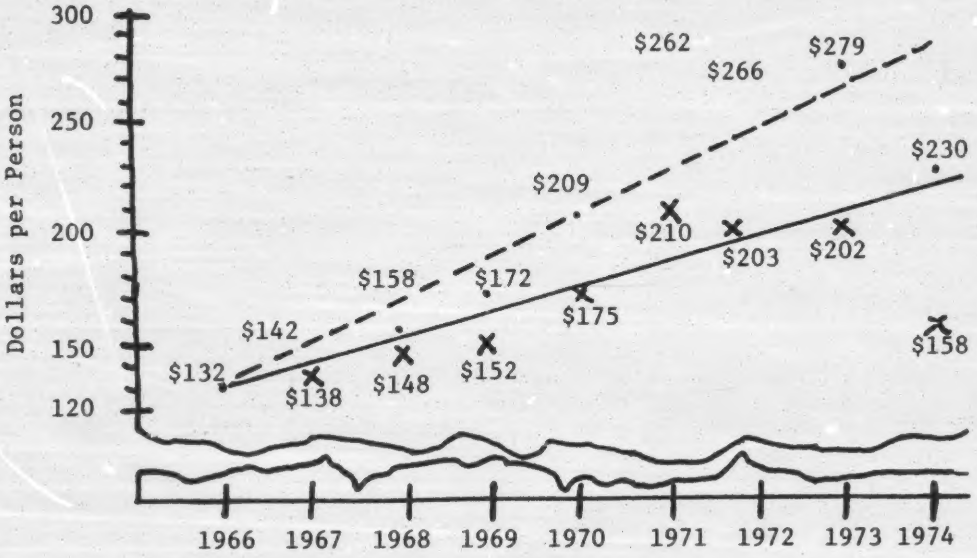
Per student expenditures take on another dimension when examined over a period of time. Graphs 24, 25, and 26 depict the training costs in vocational education from 1966 to 1972; projections are also made for 1973 and 1974. Graph 24 shows that training costs have increased from $132 in 1966 to $266 (actually $265.85) in 1972 -- represented by the dots and broken line. However, when the costs for each year since 1966 are adjusted for the distorting effects of inflation (by using the Consumer Price Index) the 1972 training cost per person is only $203; represented by the x's and the solid line.

A somewhat startling fact is revealed in Graphs 25 and 26. When the Federal costs and the State and local costs are adjusted for inflation, the Federal cost of (or Federal contribution to) training, on a per person basis, was lower in 1972 than in 1966. How then have rising per student costs been met? Both increases in training costs and compensations for reduced Federal participation have been borne by State and local funding sources -- see Graph 26.

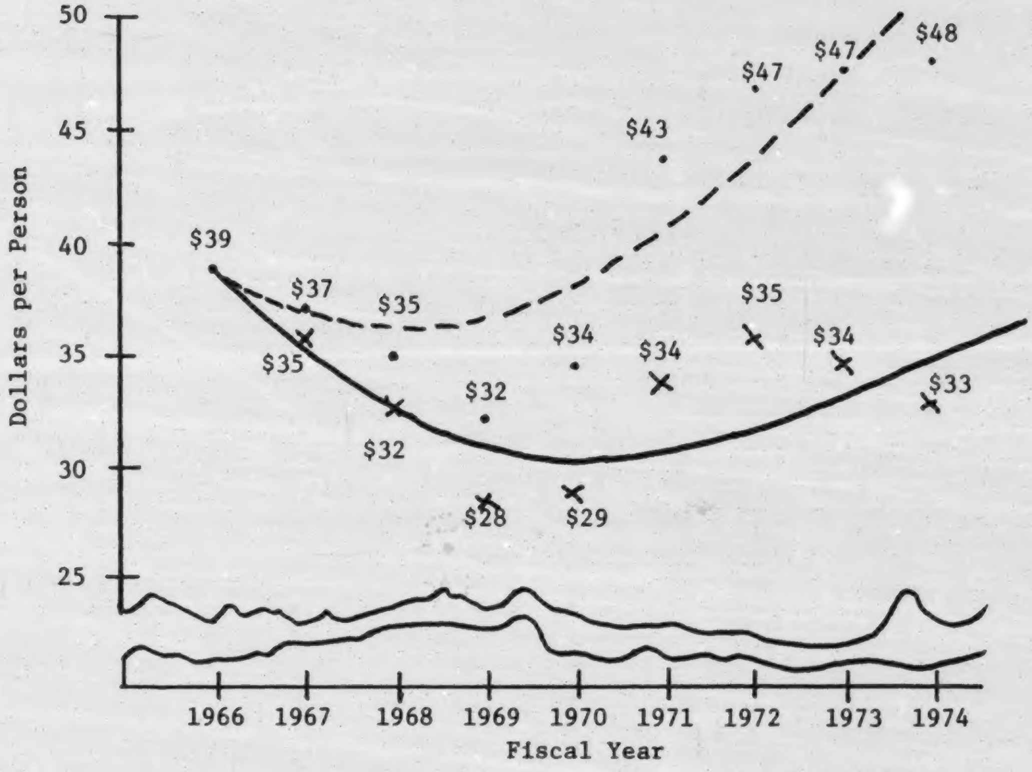
As in much of educational finance, the impact of the foregoing data is not readily apparent. Educators have not been able to establish an "ideal" per pupil expenditure. There are no guarantees which assure a given amount of educational gain for an increment of financial investment. Consequently, the educator and the general public must look elsewhere for the relevance of expenditures.

Inasmuch as a given occupation is similar in content regardless of its geographic location in the Nation, one can expect per pupil expenditures to be similar in all parts of the Nation. When the expenditures vary significantly, the reasons should be determined.

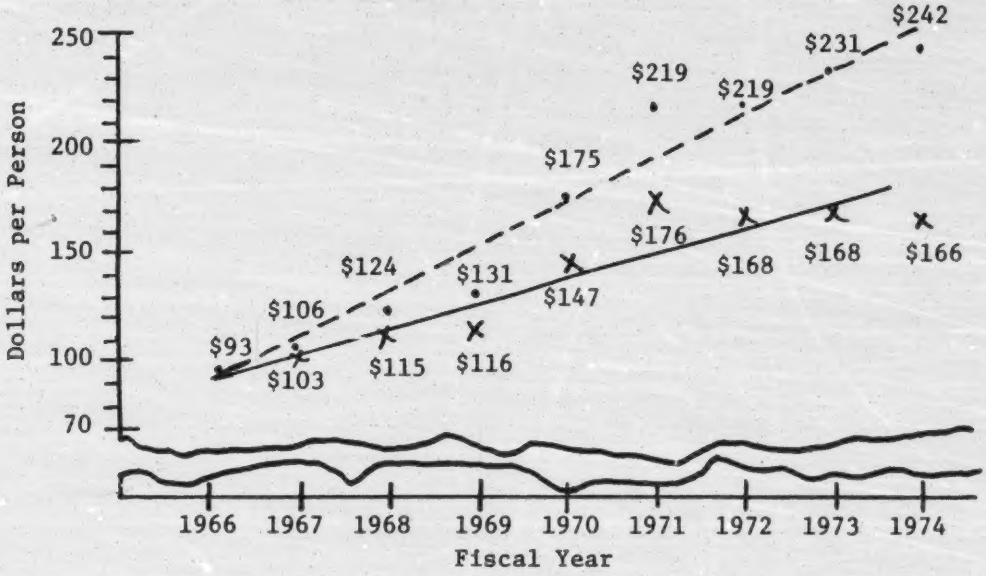
Graph 24 - Training Costs in Vocational Education
Federal, State, and Local Expenditures Per
Person, FY 1966 to FY 1972 With Projections
For 1973 and 1974



Graph 25 - Training Costs in Vocational Education Federal Expenditures Per Person, FY 1966 to FY 1972 With Projections For 1973 and 1974



Graph 26 - Training Costs in Vocational Education State and Local Expenditures Per Person FY 1966 to FY 1972 With Projections for 1973 and 1974



Expenditures for the occupational areas at all levels. As the Second Annual Report of Project Baseline was developed, a host of data was gathered from the States. Some data were available by making copies of forms the States had submitted to the U.S. Office of Education. Other data available were those which have been collected by the States for their own purposes. And still other data, when requested by the Baseline staff, were gathered by the respective State staffs from their local education agencies.

In many areas under study by Baseline the data were relatively complete and fairly compatible. In other areas, data were available only partially. In both instances the rationale followed was the same: combine data which appear compatible, report data while noting variation, and analyze to the degree which seems defensible.

Table 67 is an example of the reporting of data which were not available from all States. The topic under examination is the expenditure of funds for the occupational areas -- agriculture, distributive education, etc. This topic was included because most States, if not all, still are organized in this manner. They earmark funds and make expenditures in these traditional occupational areas. So this organizational pattern of structuring by occupational area will probably continue to be used by the States until a better one has been developed and integrated with the vocational education program at the national, State, and local levels.

Analyzing the activity in the occupational areas will continue to be essential if vocational education is to keep abreast of the operation of the program. Consequently, Table 67 and its subdivisions, Tables 71, 75, and 79 are an initial effort to gather, compile, analyse, and report vocational education data -- even when they are only partially available.

Seven States provided financial data for the traditional occupational areas. They are Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia.

For all occupational areas at all levels of vocational education the highest expenditure of funds from all sources (i.e. Federal, State, and local monies) totaled $40,757,164 (Virginia). The lowest expenditure from all sources was $4,305,669 (North Dakota). The total expended in the seven States was $84,769,367. The breakdown was: Federal -- $19,735,966; State -- $17,737,762; local -- $47,297,639.

Most of the States report expenditures in all occupational areas. As can be seen from the footnotes which amend the tables, there is variation in the way in which direct and indirect program costs are reported. A more detailed examination of the data follows under the sections on expenditures for secondary, post-secondary, and adult levels.

Table 67 - Total Federal, State and Local Vocational Education Expenditures by Occupational Areas From Seven States, 1971-72

States	GRAND TOTALS				AGRICULTURE			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	19,735,966	17,737,762	47,297,639	84,769,367	2,870,415	3,056,328	8,386,005	14,312,748
Idaho[1]	1,172,466	2,239,519	1,655,630	5,067,615	228,811	313,353	338,606	880,770
Mississippi	1,830,721	3,724,366	2,881,078	8,436,165	294,954	682,410	827,836	1,805,200
Nebraska[2]	2,218,257	157,659	6,027,435	8,403,351	485,757	54,710	1,132,372	1,672,839
N. Dakota[3]	910,608	1,541,122	1,853,939	4,305,669	232,066	135,072	377,165	744,303
Oklahoma[5]	2,003,804	867,241	10,406,255	13,277,300	269,131	338,739	3,133,492	3,741,362
S. Dakota	1,532,632	431,062	2,558,409	4,522,103	305,521	68,223	313,620	687,364
Virginia	10,065,478	8,776,793	21,914,893	40,757,164	1,054,175	1,463,821	2,262,914	4,780,910

States	DISTRIBUTIVE EDUCATION				HEALTH OCCUPATIONS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	1,532,056	1,561,186	3,493,067	6,586,309	902,832	672,516	1,363,023	2,938,371
Idaho[1]	42,200	86,076	47,114	175,390	97,167	89,216	33,430	219,813
Mississippi	64,805	158,061	144,645	367,511	152,089	344,053	130,278	626,420
Nebraska[2]	117,880	177	239,414	357,471	85,018	55,215	328,658	468,891
N. Dakota[3]	51,302	19,538	68,419	139,259	36,089[4]	89,585[4]	44,263	169,937
Oklahoma[5]	74,268	37,573	433,973	545,814	356,337	24,680	713,822	1,094,839
S. Dakota	227,945	17,900	104,738	350,583	176,132	69,767	112,572	358,471
Virginia	953,656	1,241,861	2,454,764	4,650,281				

[1] These figures do not include Administrative, Supervisory or Ancillary Services Expenditures.

[2] These figures do not include Ancillary Services, Diversified Occupations or Guidance Expenditures.

[3] These figures do not include Administration, Supervision, Guidance, Ancillary Services, Cooperative Education, nor special needs programs within these occupational areas.

[4] These figures include Health Occupations and Technical Education Expenditures.

[5] These figures do not include Area School Expenditures or Administrative, Supervisory or Ancillary Services Expenditures.

Table 67 - Cont'd

States	CONSUMER & HOMEMAKING				OCCUPATIONAL HOME ECONOMICS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	1,677,619	2,834,686	10,753,328	15,265,633	162,409	82,479	335,604	580,492
Idaho[1]	110,864	187,100	780,987	1,078,951	6,330	12,099	2,414	20,843
Mississippi					63,964	60,420	95,204	219,588
Nebraska[2]	164,933	28,491	1,191,678	1,385,102	38,634	1,551	81,870	122,055
N. Dakota[3]	74,001	69,203	646,872	790,076	18,777	1,793	17,240	37,810
Oklahoma[5]	274,915	171,451	2,517,570	2,963,936	18,683	4,643	123,089	146,415
S. Dakota	64,528	0	1,105,022	1,169,550	16,021	1,973	15,787	33,781
Virginia	988,378[6]	2,378,441	4,511,199[6]	7,878,018				

States	OFFICE OCCUPATIONS				TECHNICAL EDUCATION			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	2,546,762	1,790,729	4,864,108	9,201,599	1,145,196	963,119	1,242,476	3,350,791
Idaho[1]	179,281	257,645	330,592	767,518	124,677	364,686	0	489,363
Mississippi	185,441	423,115	247,967	856.523	256,934	522,586	206,320	985,840
Nebraska[2]	409,282	1,750	944,773	1,355,805				
N. Dakota[3]	211,014	157,682	279,823	648,519				
Oklahoma[5]	78,061	38,994	493,207	610,262	763,585	75,847	1,036,156	1,875,588
S. Dakota	150,340	47,624	148,744	346,708				
Virginia	1,333,343	863,919	2,419,002	4,616,264				

States	TRADE & INDUSTRIAL EDUCATION			
	Federal	State	Local	Total
TOTALS	8,898,677	6,776,719	16,860,028	32,535,424
Idaho[1]	383,136	929,344	122,487	1,434,967
Mississippi	812,534	1,533,721	1,228,828	3,575,083
Nebraska[2]	916,753	15,765	2,108,670	3,041,188
N. Dakota[3]	289,359	1,068,249	420,157	1,777,765
Oklahoma[5]	168,824	175,314	1,954,946	2,299,084
S. Dakota	592,145	225,575	757,926	1,575,646
Virginia	5,735,926[7]	2,828,751[7]	10,267,014[7]	18,831,691

[6] These figures include Occupational Home Economics Expenditures.
[7] These figures include Health Occupations Expenditures.

Source: Data collected from various States.

Expenditures for Secondary Vocational Education

Vocational education has been a part of the secondary school since 1917. From the 1920s, many local schools have had vocational classes as a part of the regular program; this was an effort to offer a "comprehensive" program. In other cases, entire schools within a district were devoted to vocational subjects; these schools were often referred to as "technical" high schools.

With the passage of the National Defense Education Act of 1958, area schools were created. The purpose of these schools was to offer training in occupations essential to the industrial, technical, and economic growth of this country. Many of these area schools were located in communities in such a way as to permit attendance by secondary school students from schools which had limited vocational offerings.

With vocational education being available to America's youth through comprehensive schools, through technical schools, and through area schools, one can expect that total expenditures amount to a sizeable figure.

Total dollar expenditures. The expenditure for secondary vocational education -- including Federal, State and local monies was $1,744,002,000 in Fiscal year 1972; see Table 68. Of this amount $294,184,000 was Federal money. By simple subtraction, the State and local expenditure comes to $1,449,818,000.

Per student expentitures. The total Federally reported enrollment of 5,617,334 secondary school students, when divided into total expenditures, resulted in a national average of $310.47 expended per secondary student. This amount is substantially higher than the national average for all vocational students of $265.85.

The States vary widely in per pupil expenditure for the secondary vocational education program, from a low of $82.85 (Wisconsin) to a high of $943.26 (Massachusetts). Undoubtedly, some of this variation is due to under-reporting by many of the lower States. Also, some variation can be accounted for in terms of the wealth of the States.

Table 69 displays the expenditures per secondary vocational education student which came from Federal monies. Of the average $310.47 expended per secondary student in vocational education $52.37 came from Federal monies. Thus, about five dollars in every six, or approximately eighty-three percent, expended for secondary vocational education came from State and local sources. Among the States, the amount of Federal dollars expended per secondary vocational education student ranged from a high of $114.60 (Pennsylvania) to a low of $24.52 (Connecticut).

Table 68 - Federal and State/Local Expenditures Per Student in Secondary Vocational Education, 1971-72

States	Federal and State/Local Secondary Vocational Education Expenditures (Rounded)	Secondary Vocational Education Enrollment	Expenditures Per Student in Secondary Vocational Education	Rank Order
U.S. TOTAL	1,744,002,000	5,617,334	310.47	
Alabama	23,265,000	93,350	249.22	25
Alaska	3,844,000	11,854	324.28	13
Arizona	10,708,000	50,279	212.97	32
Arkansas	9,650,000	61,692	156.42	48
California	123,053,000	580,211	212.08	33
Colorado	19,163,000	52,043	368.21	9
Connecticut	28,330,000	95,802	295.71	19
Delaware	5,092,000	32,049	158.88	47
Dist. of C.	NA	5,706	NA	NA
Florida	51,906,000	260,082	199.58	37
Georgia	32,625,000	162,359	200.94	34
Hawaii	3,145,000	18,935	166.09	45
Idaho	3,263,000	22,377	145.82	50
Illinois	146,863,000	479,099	306.54	15
Indiana	30,159,000	101,506	297.12	17
Iowa	9,613,000	52,394	183.48	39
Kansas	12,106,000	42,813	282.76	21
Kentucky	19,864,000	99,169	200.30	35
Louisiana	20,765,000	126,184	164.56	46
Maine	8,244,000	16,779	491.33	7
Maryland	55,561,000	111,701	497.41	6
Massachusetts	114,780,000	121,684	943.26	1
Michigan	36,407,000	182,185	199.84	36
Minnesota	20,112,000	110,086	182.69	42
Mississippi	15,812,000	57,819	273.47	22
Missouri	36,739,000	112,167	327.54	12
Montana	4,523,000	19,416	232.95	28
Nebraska	6,598,000	36,052	183.01	41
Nevada	3,205,000	14,469	221.51	31
New Hampshire	4,516,000	17,921	251.99	24
New Jersey	36,695,000	200,439	183.07	40
New Mexico	6,894,000	40,038	172.19	43
New York	225,618,000	483,285	466.84	8
N. Carolina	46,829,000	174,984	267.62	23
N. Dakota	3,415,000	20,067	170.18	44
Ohio	109,273,000	195,833	557.99	4
Oklahoma	21,819,000	61,418	355.25	11
Oregon	15,803,000	64,161	246.30	27
Pennsylvania	143,155,000	189,073	757.14	2
Rhode Island	6,915,000	13,250	521.89	5
S. Carolina	22,543,000	75,880	297.09	18
S. Dakota	3,502,000	15,454	226.61	29
Tennessee	23,608,000	94,960	248.61	26
Texas	92,557,000	305,222	303.24	16
Utah	9,651,000	62,545	154.30	49
Vermont	8,870,000	12,142	730.52	3
Virginia	36,271,000	127,640	284.17	20
Washington	28,405,000	125,767	225.85	30
W. Virginia	12,316,000	38,334	321.28	14
Wisconsin	8,557,000	103,278	82.85	51
Wyoming	2,952,000	15,089	195.64	38
Puerto Rico	18,443,000	50,292	366.72	10

So[illegible] U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 69 - Secondary Federal Vocational Education Expenditures Per Student, 1971-72

States	Total Secondary Federal Vocational Education Expenditures (Rounded)	Total Secondary Vocational Education Enrollment	Secondary Federal Vocational Education Expenditures Per Student	Rank Order
U.S. TOTAL	294,184,000	5,617,334	52.37	
Alabama	8,517,000	93,350	91.24	8
Alaska	715,000	11,854	60.32	22
Arizona	2,557,000	50,279	50.86	32
Arkansas	2,827,000	61,692	45.82	36
California	22,362,000	580,211	38.54	40
Colorado	2,989,000	52,043	57.43	24
Connecticut	2,349,000	95,802	24.52	51
Delaware	1,017,000	32,049	31.73	46
Dist. of C.	NA	5,706	NA	NA
Florida	9,853,000	260,082	37.88	41
Georgia	8,111,000	162,359	49.96	33
Hawaii	902,000	18,935	47.64	35
Idaho	996,000	22,377	44.51	37
Illinois	14,709,000	479,099	30.70	47
Indiana	9,312,000	101,506	91.74	7
Iowa	1,948,000	52,394	37.18	42
Kansas	2,997,000	42,813	70.00	14
Kentucky	5,334,000	99,169	53.79	28
Louisiana	6,860,000	126,184	54.36	27
Maine	1,703,000	16,779	101.50	5
Maryland	5,846,000	111,701	52.34	31
Massachusetts	8,317,000	121,684	68.35	17
Michigan	9,609,000	182,185	52.74	30
Minnesota	3,287,000	110,086	29.86	48
Mississippi	4,510,000	57,819	78.00	11
Missouri	7,692,000	112,167	68.58	16
Montana	1,075,000	19,416	55.37	26
Nebraska	2,613,000	36,052	72.48	12
Nevada	896,000	14,469	61.93	21
New Hampshire	1,276,000	17,921	71.20	13
New Jersey	11,438,000	200,439	57.06	25
New Mexico	1,974,000	40,038	49.30	34
New York	17,040,000	483,285	35.26	45
N. Carolina	10,543,000	174,984	60.25	23
N. Dakota	1,282,000	20,067	63.89	20
Ohio	12,988,000	195,833	66.32	19
Oklahoma	5,277,000	61,418	85.92	10
Oregon	2,775,000	64,161	43.25	39
Pennsylvania	21,667,000	189,073	114.60	1
Rhode Island	1,321,000	13,250	99.70	6
S. Carolina	8,166,000	75,880	107.62	4
S. Dakota	1,338,000	15,454	86.58	9
Tennessee	5,088,000	94,960	53.58	29
Texas	13,472,000	305,222	44.14	38
Utah	1,603,000	62,545	25.63	50
Vermont	814,000	12,142	67.04	18
Virginia	8,837,000	127,640	69.23	15
Washington	3,359,000	125,767	26.71	49
W. Virginia	4,138,000	38,334	107.95	3
Wisconsin	3,729,000	103,278	36.11	43
Wyoming	534,000	15,089	35.39	44
Puerto Rico	5,622,000	50,292	111.79	2

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 70 reinforces the data in Table 68: Vocational educators invest large portions of their cash resources in secondary vocational education. Of total enrollment, 56.3 percent is found at the secondary school level; of total expenditures, 65.7 percent is spent at the secondary level. Thus, secondary expenditures exceed secondary enrollment by 9.4 percentage points.

On the face of it, State and local vocational educators appear to have invested a larger portion of the cash resources in the secondary program. As previously noted, State and local monies account for over eighty percent of the expenditures for secondary vocational education. Whether this investment reflects purposeful program emphasis, the fiscal demands of secondary program operation, or other factors is not known. The matter warrants a thorough examination.

Table 70 - Comparison of Secondary Vocational Education Federal and State/Local Expenditures with Secondary Vocational Education Enrollment, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Total Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Secondary Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	2,654,338,633	1,744,002,000	65.70	56.26
Alabama	37,968,073	23,265,000	61.28	59.18
Alaska	4,965,839	3,844,000	77.41	56.65
Arizona	17,702,074	10,708,000	60.49	48.91
Arkansas	16,206,618	9,650,000	59.54	55.97
California	259,756,320	123,053,000	47.37	47.50
Colorado	28,923,050	19,163,000	66.26	51.26
Connecticut	39,124,769	28,330,000	72.41	75.07
Delaware	8,660,371	5,092,000	58.80	85.87
Dist. of C.	NA	NA	NA	52.77
Florida	94,466,988	51,906,000	54.95	50.82
Georgia	52,264,269	32,625,000	62.42	56.04
Hawaii	7,806,369	3,145,000	40.29	47.17
Idaho	7,307,127	3,263,000	44.66	67.51
Illinois	189,099,311	146,863,000	77.66	80.40
Indiana	35,810,152	30,159,000	84.22	65.68
Iowa	34,530,677	9,613,000	27.84	39.26
Kansas	19,623,161	12,106,000	61.69	43.32
Kentucky	34,479,088	19,864,000	57.61	60.15
Louisiana	32,175,081	20,765,000	64.54	71.57
Maine	15,796,302	8,244,000	52.19	56.23
Maryland	67,027,531	55,561,000	82.89	67.28
Massachusetts	128,815,407	114,780,000	89.10	74.29
Michigan	54,056,557	36,407,000	67.35	53.12
Minnesota	56,385,955	20,112,000	35.67	46.98
Mississippi	26,380,372	15,812,000	59.94	52.77
Missouri	45,208,574	36,739,000	81.27	68.97
Montana	8,569,050	4,523,000	52.78	60.17
Nebraska	12,512,758	6,598,000	52.73	52.40
Nevada	4,302,443	3,205,000	74.49	70.18
New Hampshire	7,492,673	4,516,000	60.27	70.81
New Jersey	42,542,030	36,695,000	86.26	64.62
New Mexico	10,191,833	6,894,000	67.64	76.50
New York	328,653,372	225,618,000	68.65	64.05
N. Carolina	99,029,216	46,829,000	47.29	40.63
N. Dakota	6,059,333	3,415,000	56.36	61.49
Ohio	139,092,332	109,273,000	78.56	47.53
Oklahoma	28,551,802	21,819,000	76.42	57.19
Oregon	27,512,230	15,803,000	57.44	51.77
Pennsylvania	172,056,004	143,155,000	83.20	57.74
Rhode Island	8,849,940	6,915,000	78.14	66.28
S. Carolina	24,757,946	22,543,000	91.05	74.67
S. Dakota	5,444,718	3,502,000	64.32	69.34
Tennessee	39,899,987	23,608,000	59.17	62.79
Texas	130,240,601	92,557,000	71.07	48.98
Utah	18,455,058	9,651,000	52.29	62.00
Vermont	9,355,445	8,870,000	94.81	71.83
Virginia	44,987,840	36,271,000	80.62	47.31
Washington	53,491,851	28,405,000	53.10	50.15
W. Virginia	14,498,425	12,316,000	84.95	60.55
Wisconsin	71,469,433	8,557,000	11.97	40.74
Wyoming	4,632,798	2,952,000	63.72	85.28
Puerto Rico	27,149,480	18,443,000	67.93	51.94

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Expenditures for the occupational areas in the secondary schools. Seven States provided financial data for the traditional occupational areas in the secondary schools -- Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia.

For all occupational areas in secondary vocational education, the highest expenditure of funds from all sources (i.e. Federal, State, and local monies) totaled $29,669,406 (Virginia). The lowest expenditure from all sources was $2,302,650 (North Dakota). The total expended in the seven States was $55,710,780. The breakdown was: Federal -- $10,382,557; State -- $10,847,906; local -- $34,480,317.

The most notable occurrence is that all seven States report no expenditures for technical education. This is understandable, as technical education is widely recognized as having a strong mathematics and science orientation. Providing additional mathematics and science courses in an already crowded secondary school curriculum has proven to be difficult. Consequently, relatively few secondary schools have been able to operate technical education programs.

The three occupational areas in which the largest dollar investments were made are agricultural education -- $12.5 million; consumer and homemaking education -- $14.7 million; and trade and industrial education -- $16.6 million. This is an expenditure of almost eighty percent of the total in three occupational areas. Assuming that vocational education in these seven States relates strongly to the labor market, then the following questions should be answered. To what extent is secondary school agriculture offering skills and knowledge which permit high school students to successfully enter the modern agricultural market? How is $14 million of State and local money for consumer and homemaking education being invested to build the more important skills in future homemakers and consumers? In what way is trade and industrial education helping youth develop breadth of skills and knowledge which permit the individual to adjust to and progress in a changing technology? These questions touch at the core of the challenge to secondary vocational education.

Table 71 - Secondary Federal, State and Local Vocational Education Expenditures by Occupational Areas From Seven States, 1971-72

States	GRAND TOTALS				AGRICULTURE			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	10,382,557	10,847,906	10,480,317	55,710,780	2,242,821	2,631,661	7,650,326	12,524,808
Idaho[1]	452,811	481,816	1,622,200	2,556,827	179,170	158,937	338,606	676,713
Mississippi	702,585	1,193,974	1,916,723	3,813,282	216,380	604,392	801,972	1,622,744
Nebraska[2]	1,275,271	84,228	3,277,658	4,637,157	378,850	50,980	767,569	1,197,399
N. Dakota[3]	481,973	409,739	1,410,938	2,302,650	224,016	108,960	341,700	674,676
Oklahoma[5]	739,290	722,651	8,419,254	9,881,195	234,300	337,200	3,094,681	3,666,181
S. Dakota	863,962	173,715	1,812,586	2,850,263	259,260	61,350	303,234	623,844
Virginia	5,866,665	7,781,783	16,020,958	29,669,406	750,845	1,309,842	2,002,564	4,063,251

States	DISTRIBUTIVE EDUCATION				HEALTH OCCUPATIONS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	982,169	1,138,874	2,797,486	4,918,529	27,709	31,165	51,702	110,576
Idaho[1]	20,449	11,888	47,114	79,451	0	0	0	0
Mississippi	23,155	65,453	103,769	192,377	16,203	21,468	12,669	50,340
Nebraska[2]	103,998	0	191,446	295,444	4,077	0	9,092	13,169
N. Dakota[3]	41,783	9,160	45,918	96,861	0	8,235[4]	6,891[4]	15,126
Oklahoma[5]	30,125	29,875	362,506	422,506	5,250	500	21,572	27,322
S. Dakota	193,215	17,900	104,080	315,195	2,179	962	1,478	4,619
Virginia	569,444	1,004,598	1,942,653	3,516,695				

[1] These figures do not include Administrative, Supervisory, or Ancillary Services Expenditures.

[2] These figures do not include Ancillary Services, Diversified Occupations or Guidance Expenditures.

[3] These figures do not include Administration, Supervision, Guidance, Ancillary Services, Cooperative Education, nor special needs programs within these occupational areas.

[4] These figures include Technical Education Expenditures.

[5] These figures do not include Area School Expenditures or Administrative, Supervisory, or Ancillary Services Expenditures.

Table 71 - Cont'd

States	CONSUMER & HOMEMAKING				OCCUPATIONAL HOME ECONOMICS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	1,532,507	2,733,586	10,434,835	14,700,928	120,455	29,360	251,729	401,544
Idaho[1]	91,393	170,896	780,987	1,043,276	455	151	2,414	3,018
Mississippi					50,316	24,662	85,445	160,423
Nebraska[2]	97,213	21,242	1,092,370	1,210,825	24,785	1,312	25,179	51,276
N. Dakota[3]	67,941	63,235	639,739	770,915	14,813	1,262	14,078	30,153
Oklahoma[5]	274,915	171,451	2,517,570	2,963,936	15,000	0	109,759	124,759
S. Dakota	62,920	0	1,103,414	1,166,334	15,088	1,973	14,854	31,915
Virginia	938,125[6]	2,306,762	4,300,755	7,545,642				

States	OFFICE OCCUPATIONS				TECHNICAL EDUCATION			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	1,743,068	1,100,379	3,597,949	6,441,396	0	0	0	0
Idaho[1]	108,070	92,628	330,592	531,290	0	0	0	0
Mississippi	35,803	67,826	103,837	207,466	0	0	0	0
Nebraska[2]	318,105	0	563,885	881,990				
N. Dakota[3]	127,083	96,074	209,323	432,480				
Oklahoma[5]	35,950	33,000	422,576	491,526	0	0	0	0
S. Dakota	113,568	29,044	118,769	261,381				
Virginia	1,004,489	781,807	1,848,967	3,635,263				

States	TRADE & INDUSTRIAL EDUCATION			
	Federal	State	Local	Total
TOTALS	3,733,828	3,182,881	9,696,290	16,612,999
Idaho[1]	53,276	47,316	122,487	223,079
Mississippi	360,728	410,173	809,031	1,579,932
Nebraska[2]	348,243	10,694	628,117	987,054
N. Dakota[3]	6,337	122,813	153,289	282,439
Oklahoma[5]	143,750	150,625	1,890,590	2,184,965
S. Dakota	217,732	62,486	166,757	446,975
Virginia	2,603,762[7]	2,378,774[7]	5,926,019[7]	10,908,555

[6] Includes Occupational Home Economics Expenditures.

[7] Includes Health Occupations Expenditures.

Source: Data collected from various States.

Expenditures for Post-Secondary Vocational Education

The intention of those who drafted the 1968 Amendments was to stimulate the rapid development of post-secondary vocational education. As a stimulant, the Act required that fifteen percent of the basic grants to States be expended for post-secondary programs. As noted elsewhere in this publication, the Fiscal accountability for such matters lies with the U.S. Office of Education, and no effort is made here to examine whether or not this requirement is being met. On the contrary, the intent of Project Baseline is to explore other ways of viewing the financial variables in vocational education.

Table 72 - Comparison of Post-Secondary Vocational Education Federal and State/Local Expenditures with Post-Secondary Vocational Education Enrollment, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Total Post-Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Post-Secondary Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	2,654,338,633	701,236,000	26.42	13.05
Alabama	37,968,073	13,935,000	36.70	12.59
Alaska	4,965,839	945,000	19.03	13.45
Arizona	17,702,074	5,884,000	33.24	37.27
Arkansas	16,206,618	6,015,000	37.11	5.66
California	259,756,320	111,858,000	43.06	26.99
Colorado	28,923,050	8,808,000	30.45	14.74
Connecticut	39,124,769	6,411,000	16.39	5.47
Delaware	8,660,371	3,360,000	38.80	3.35
Dist. of C.	NA	NA	NA	15.29
Florida	94,466,988	30,537,000	32.33	14.69
Georgia	52,264,269	16,545,000	31.66	9.06
Hawaii	7,806,369	4,274,000	54.75	25.18
Idaho	7,307,127	3,959,000	54.18	9.82
Illinois	189,099,311	33,401,000	17.66	14.96
Indiana	35,810,152	5,078,000	14.18	4.87
Iowa	34,530,677	22,236,000	64.39	11.99
Kansas	19,623,161	6,605,000	33.66	9.39
Kentucky	34,479,088	11,912,000	34.55	7.79
Louisiana	32,175,081	10,005,000	31.10	10.99
Maine	15,796,302	3,481,000[1]	22.04	6.92
Maryland	67,027,531	9,399,000	14.02	11.76
Massachusetts	128,815,407	11,475,000	8.91	7.95
Michigan	54,056,557	13,525,000	25.02	18.43
Minnesota	56,385,955	32,373,000	57.41	9.02
Mississippi	26,380,372	9,081,000	34.42	8.04
Missouri	45,208,574	7,186,000	15.90	8.78
Montana	8,569,050	3,958,000	46.19	12.78
Nebraska	12,512,758	5,534,000	44.23	10.44
Nevada	4,302,443	719,000	16.71	9.94
New Hampshire	7,492,673	2,611,000	34.85	7.95
New Jersey	42,542,030	3,991,000	9.38	5.47
New Mexico	10,191,833	2,955,000	28.99	9.74
New York	328,653,372	51,630,000	15.71	8.33
N. Carolina	99,029,216	44,793,000	45.23	10.78
N. Dakota	6,059,333	2,245,000	37.05	13.20
Ohio	139,092,332	12,830,000	9.22	4.90
Oklahoma	28,551,802	4,596,000	16.10	5.43
Oregon	27,512,230	10,260,000	37.29	18.11
Pennsylvania	172,056,004	21,175,000	12.31	9.11
Rhode Island	8,849,940	1,611,000	18.20	5.29
S. Carolina	24,757,946	1,906,000	7.70	7.34
S. Dakota	5,444,718	1,840,000	33.79	8.98
Tennessee	39,899,987	14,152,000	35.47	11.75
Texas	130,240,601	31,843,000	24.45	8.43
Utah	18,455,058	7,580,000	41.07	12.95
Vermont	9,355,445	408,000	4.36	1.25
Virginia	44,987,840	6,468,000	14.38	6.97
Washington	53,491,851	21,889,000	40.92	23.41
W. Virginia	14,498,425	1,438,000	9.92	4.24
Wisconsin	71,469,433	50,348,000	70.45	19.33
Wyoming	4,632,798	1,637,000	35.34	9.14
Puerto Rico	27,149,480	4,531,000	16.69	16.61

[1] Instructional costs only.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Total dollar expenditures. In Fiscal year 1972, the total expenditure for post-secondary programs in vocational education was $701,236,000; this sum was 26.4 percent of the total expenditure for vocational education programs at all levels; see Table 72. Also shown on the table is the percent of total vocational education enrollment which is found at the post-secondary level -- 13.1. The comparison seen is that the cash resource investment as a percent of the total is twice the enrollment, as a percent of the total. Very possibly this high investment is necessary to promote the high growth rate experienced by post-secondary vocational education in the past several years -- over 500 percent!

Per student expenditures. In post-secondary vocational education, an average of $538.15 was spent for each student enrolled; see Table 73. The range of per student expenditures was from a high of $2,690.15 (Delaware) to a low of $153.56 (Arizona). Inasmuch as student enrollment varies widely in program content, contact hours, and the like, drawing strong conclusions is very hazardous. However, since the per student expenditure for the post-secondary program was more than double the average for all levels, one could suggest that vocational education was making heavy investments in the post-secondary programs.

Table 72 supports this suggestion. While only 13.1 percent of the total enrollment in vocational education was found at the post-secondary level, 26.4 percent of the cash resources were expended here. Possibly heavy investments are being made in constructing and equipping new facilities in communities which previously had few or none; there are no data to support or refute that possibility. The comparisons of enrollment and expenditure percentages for the States are also shown in Table 72. The range was from an enrollment high of 37.3 percent (Arizona) to a low of 1.3 percent (Vermont). Expenditures ranged from a high of 70.45 percent (Wisconsin) to a low of 4.4 percent (Vermont) of total vocational education expenditures.

Table 73 - Federal and State/Local Expenditures Per Student in Post-Secondary Vocational Education, 1971-72

States	Federal and State/Local Post-Secondary Vocational Education Expenditures (Rounded)	Post-Secondary Vocational Education Enrollment	Expenditures per Student in Post-Secondary Vocational Education	Rank Order
U.S. TOTAL	701,236,000	1,303,052	538.15	
Alabama	13,935,000	19,853	701.91	25
Alaska	945,000	2,814	335.82	46
Arizona	5,884,000	38,318	153.56	51
Arkansas	6,015,000	6,240	963.94	13
California	111,858,000	329,635	339.34	45
Colorado	8,808,000	14,964	588.61	30
Connecticut	6,411,000	6,977	918.88	17
Delaware	3,360,000	1,249	2,690.15	1
Dist. of C.	NA	1,653	NA	NA
Florida	30,537,000	75,173	406.22	40
Georgia	16,545,000	26,262	630.00	28
Hawaii	4,274,000	10,107	422.88	39
Idaho	3,959,000	3,255	1,216.28	8
Illinois	33,401,000	89,168	374.59	41
Indiana	5,078,000	7,529	674.46	26
Iowa	22,236,000	15,996	1,390.10	6
Kansas	6,605,000	9,283	711.52	23
Kentucky	11,912,000	12,844	927.44	15
Louisiana	10,005,000	19,375	516.39	35
Maine	3,481,000[1]	2,065	1,685.71	3
Maryland	9,399,000	19,522	481.46	37
Massachusetts	11,475,000	13,019	881.40	18
Michigan	13,525,000	63,216	213.95	50
Minnesota	32,373,000	21,130	1,532.09	4
Mississippi	9,081,000	8,812	1,030.53	9
Missouri	7,186,000	14,282	503.15	36
Montana	3,958,000	4,125	959.52	14
Nebraska	5,534,000	7,180	770.75	22
Nevada	719,000	2,050	350.73	43
New Hampshire	2,611,000	2,011	1,298.36	7
New Jersey	3,991,000	16,974	235.12	49
New Mexico	2,955,000	5,099	579.53	32
New York	51,630,000	62,883	821.05	19
N. Carolina	44,793,000	46,421	964.93	12
N. Dakota	2,245,000	4,307	521.24	34
Ohio	12,830,000	20,186	635.59	27
Oklahoma	4,596,000	5,832	788.07	21
Oregon	10,260,000	22,444	457.14	38
Pennsylvania	21,175,000	29,844	709.52	24
Rhode Island	1,611,000	1,058	1,522.68	5
S. Carolina	1,906,000	7,463	255.39	48
S. Dakota	1,840,000	2,002	919.08	16
Tennessee	14,152,000	17,773	796.26	20
Texas	31,843,000	52,508	606.44	29
Utah	7,580,000	13,059	580.44	31
Vermont	408,000	212	1,924.53	2
Virginia	6,468,000	18,807	343.91	44
Washington	21,889,000	58,701	372.89	42
W. Virginia	1,438,000	2,685	535.57	33
Wisconsin	50,348,000	48,990	1,027.72	10
Wyoming	1,637,000	1,617	1,012.37	11
Puerto Rico	4,531,000	16,080	281.78	47

[1] This figure includes instructional costs only.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The national average expenditure and the States' expenditure of Federal monies for post-secondary vocational education is shown in Table 74. For the Nation an average of $93.87 of Federal money is spent for each post-secondary student in vocational education. This is almost twice the average of $52.37 spent for students at all levels of vocational education. The table also displays the expenditures of Federal money by the States.

Table 74 - Post-Secondary Federal Vocational Education Expenditures Per Student, 1971-72

States	Post-Secondary Federal Vocational Education Expenditures (Rounded)	Post-Secondary Vocational Education Enrollment	Post-Secondary Federal Vocational Education Expenditures Per Student	Rank Order
U.S. TOTAL	122,311,000	1,303,052	93.87	
Alabama	1,771,000	19,853	89.21	38
Alaska	130,000	2,814	46.20	47
Arizona	1,030,000	38,318	26.88	51
Arkansas	2,341,000	6,240	375.16	3
California	11,365,000	329,635	34.48	50
Colorado	1,706,000	14,964	114.01	32
Connecticut	536,000	6,977	76.82	42
Delaware	178,000	1,249	142.51	26
Dist. of C.	NA	1,653	NA	NA
Florida	4,499,000	75,173	59.85	44
Georgia	6,739,000	26,262	256.61	10
Hawaii	1,301,000	10,107	128.72	30
Idaho	1,378,000	3,255	423.35	2
Illinois	3,496,000	89,168	39.21	49
Indiana	1,775,000	7,529	235.76	14
Iowa	4,002,000	15,996	250.19	11
Kansas	1,777,000	9,283	191.43	17
Kentucky	3,207,000	12,844	249.69	12
Louisiana	2,467,000	19,375	127.33	31
Maine	753,000	2,065	364.65	5
Maryland	1,032,000	19,522	52.86	46
Massachusetts	1,387,000	13,019	106.54	35
Michigan	2,542,000	63,216	40.21	48
Minnesota	5,134,000	21,130	242.97	13
Mississippi	2,536,000	8,812	287.79	7
Missouri	1,872,000	14,282	131.07	29
Montana	1,094,000	4,125	265.21	9
Nebraska	969,000	7,180	134.96	28
Nevada	193,000	2,050	94.15	37
New Hampshire	157,000	2,011	78.07	41
New Jersey	1,814,000	16,974	106.87	34
New Mexico	1,127,000	5,099	221.02	15
New York	3,927,000	62,883	62.45	43
N. Carolina	5,091,000	46,421	109.67	33
N. Dakota	621,000	4,307	144.18	24
Ohio	3,314,000	20,186	164.17	22
Oklahoma	1,952,000	5,832	334.71	6
Oregon	2,176,000	22,444	96.95	36
Pennsylvania	4,807,000	29,844	161.07	23
Rhode Island	183,000	1,058	172.97	19
S. Carolina	1,070,000	7,463	143.37	25
S. Dakota	746,000	2,002	372.63	4
Tennessee	3,560,000	17,773	200.30	16
Texas	9,050,000	52,508	172.35	20
Utah	1,152,000	13,059	88.22	39
Vermont	138,000	212[1]	650.94	1
Virginia	3,106,000	18,807	165.15	21
Washington	4,889,000	58,701	83.29	40
W. Virginia	771,000	2,685	287.15	8
Wisconsin	2,931,000	48,990	59.83	45
Wyoming	291,000	1,617	179.96	18
Puerto Rico	2,228,000	16,080	138.56	27

[1] Includes only those programs administered by the State department.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Expenditures for the occupational areas in post-secondary programs. For most of the States, the post-secondary program is relatively new -- about ten years old. Finding that not all occupational areas exist in all States is no surprise. The examination of the parts is a matter of seeing what expenditures were being made on which occupational areas in Fiscal year 1972 in the seven States that provided data.

For all occupational areas in post-secondary vocational education, the highest expenditure of funds from all sources (i.e. Federal, State, and local monies) totaled $8,565,323 (Virginia). The lowest expenditure from all sources was $1,594,630 (South Dakota). The total expended in the seven States was $24,741,007. The breakdown was: Federal -- $8,412,863; State -- $5,120,451; local -- $11,207,693. Notice that in these States, State and local funds exceeded Federal funds by a ratio of 2:1.

Surprisingly, the occupational area most uniformly reporting expenditures was health occupations. In health occupations, expenditures were reported from all sources -- Federal, State, and local -- by six of the seven States; there is no separate data for Virginia on post-secondary health occupations. In Virginia, health occupation finances are included as a part of trade and industrial education. The case seems to be that health occupations is finding its widest acceptance at the post-secondary level. This is understandable as many of its programs require a high school diploma or G.E.D. for admission.

The two occupational areas having the lowest frequency of reported expenditures were consumer and homemaking and occupational home economics. Consumer and homemaking began in 1917 as a secondary school program and continues to focus heavily on that area.

Four of the seven States did not or were not able to report expenditures for technical education. Whether this was an accounting problem or another matter is not discernible.

Looking at the number of dollars spent by all States for post-secondary programs in vocational education and comparing these expenditures with total expenditures and with the secondary expenditures; it is possible to suggest that the States are working in the spirit of the 1968 Amendments to promote post-secondary vocational education by expending significant portions of Federal, State, and local dollars. Perhaps these expenditures have been a major factor in the high rate of growth in post-secondary vocational education enrollment in the past several years.

Table 75 - Post-Secondary Federal, State and Local Vocational Education Expenditures by Occupational Areas from Seven States, 1971-72

States	GRAND TOTAL				AGRICULTURE			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	8,412,863	5,120,451	11,207,693	24,741,007	521,395	243,238	510,749	1,275,382
Idaho[1]	676,185	1,719,203	33,430	2,428,818	47,591	152,459	0	200,050
Mississippi	1,058,280	1,798,133	742,942	3,599,355	33,574	59,642	21,969	115,185
Nebraska[2]	854,733	51,885	2,705,161	3,611,779	98,422	0	360,518	458,940
N. Dakota[3]	346,757	1,073,220	362,462	1,782,489	2,493	22,045	26,073	50,611
Oklahoma[5]	1,219,216	92,425	1,847,022	3,158,663	33,750	0	35,850	69,600
S. Dakota	630,065	257,347	707,218	1,594,630	44,320	6,873	8,445	59,638
Virginia	3,627,627	128,238	4,809,458	8,565,323	261,245	2,219	57,894	321,358

States	DISTRIBUTIVE EDUCATION				HEALTH OCCUPATIONS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	479,534	168,696	587,081	1,235,311	854,364	572,829	1,285,148	2,712,341
Idaho[1]	21,149	74,076	0	95,225	86,660	84,807	33,430	204,897
Mississippi	41,650	74,449	33,592	149,691	135,886	263,560	99,304	498,750
Nebraska[2]	13,505	0	47,783	61,288	73,521	51,885	315,907	441,313
N. Dakota[3]	8,775	10,378	21,757	40,910	35,861	81,122[4]	37,372[4]	154,355
Oklahoma[5]	43,650	6,750	68,703	119,103	348,778	22,650	688,336	1,059,764
S. Dakota	34,072	0	0	34,072	173,658	68,805	110,799	353,262
Virginia	316,733	3,043	415,246	735,022				

[1] These figures do not include Administrative, Supervisory or Ancillary Services Expenditures.

[2] These figures do not include Ancillary Services, Diversified Occupations or Guidance Expenditures.

[3] These figures do not include Administration, Supervision, Guidance, Ancillary Services, Cooperative Education, nor special needs programs within these Occupational Areas.

[4] These figures include Technical Education Expenditures.

[5] These figures do not include Area School Expenditures or Administrative, Supervisory or Ancillary Services Expenditures.

Table 75 - Cont'd

States	CONSUMER & HOMEMAKING				OCCUPATIONAL HOME ECONOMICS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	76,475	8,128	198,007	282,610	31,119	25,320	62,908	119,347
Idaho[1]	16,443	7,095	0	23,538	5,545	10,914	0	16,459
Mississippi					12,648	14,406	7,330	34,384
Nebraska[2]	15,000	0	74,291	89,291	9,362	0	52,416	61,778
N. Dakota[3]	0	0	0	0	3,564	0	3,162	6,726
Oklahoma[5]					0	0	0	0
S. Dakota	0	0	0	0	0	0	0	0
Virginia	45,032	1,033[6]	123,716[6]	169,781				

States	OFFICE OCCUPATIONS				TECHNICAL EDUCATION			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	679,159	514,985	1,096,823	2,290,967	1,134,796	729,099	1,140,022	3,003,917
Idaho[1]	63,221	163,625	0	226,846	124,449	364,578	0	489,027
Mississippi	149,638	268,754	118,868	537,260	256,934	301,496	144,114	702,544
Nebraska[2]	87,584	0	379,107	466,691				
N. Dakota[3]	78,129	61,232	64,291	203,652				
Oklahoma[5]	39,625	0	58,225	97,850	753,413	63,025	995,908	1,812,346
S. Dakota	31,522	18,580	24,725	74,827				
Virginia	229,440	2,794	451,607	683,841				

States	TRADE & INDUSTRIAL EDUCATION			
	Federal	State	Local	Total
TOTALS	4,636,021	2,858,156	6,326,955	13,821,132
Idaho[1]	311,127	861,649	0	1,172,776
Mississippi	427,950	815,826	317,765	1,561,541
Nebraska[2]	557,339	0	1,475,139	2,032,478
N. Dakota[3]	217,935	898,443	209,807	1,326,185
Oklahoma[5]	0	0	0	0
S. Dakota	346,493	163,089	563,249	1,072,831
Virginia	2,775,177[7]	119,149[7]	3,760,995[7]	6,655,321

[6] These figures include Occupational Home Economics Expenditures.
[7] These figures include Health Occupations Expenditures.

Source: Data collected from various States.

Expenditures for Adult Vocational Education

Adult vocational education is as old as the vocational education movement. There were guilds and societies in Europe before the founding of the United States of America. With the passage of the Smith-Hughes Act, programs for employed adults became a recognized part of the public schools. Therefore, vocational educators are not new to the area of training adults.

Total dollar expenditures. In Fiscal year 1972, the total expenditures for vocational education for adults were $197,602,000. This was 7.4 percent of the total expenditures for programs in vocational education at all levels; see Table 76. The percent of total expenditures appears low. Actually the expenditures represent funds for instructors' salaries and certain other expenses. Adult programs frequently are held in facilities planned either for secondary or post-secondary day programs or in industrial facilities. The costs of facilities and other costs are not prorated to adult classes, and the result is a lower-than-actual reported cost.

Table 76 displays adult enrollment and expenditures for adult programs. For the Nation, 30.7 percent of total enrollment in vocational education is found in adult programs. This compares with 7.4 percent of total expenditures for adult programs.

Readily apparent is the sharp reversal of practice. The States allotted a portion of their cash resources for secondary and post-secondary programs which was substantially greater than the enrollment percents found in these programs; in secondary programs expenditures exceeded enrollments by 9.4 percentage points; in post-secondary programs expenditures exceeded enrollments by 13.4 percentage points. The practice is reversed in adult programs, where enrollment is 23.3 percentage points greater than expenditure. Put another way, the enrollment of 30.7 percent is over 300 percent greater than the expenditure of 7.4 percent.

There is cause for concern here. A common assumption is that the action is where the money is; this certainly appears not to be the case in adult vocational education. Adult vocational education enrolls thirty percent of the total enrollment, yet it operates on 7.4 percent of the total funds. Adult vocational education reaches fewer persons per thousand than either the secondary or post-secondary programs. This was shown in the section on enrollment. The inference is strong that there is a causal relation between low dollar investment (with a likely parallel low staff time investment) and low growth rate.

Table 76 - Comparison of Adult Vocational Education Federal and State/Local Expenditures with Adult Vocational Education Enrollment, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Total Adult Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Adult Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	2,654,338,633	197,602,000	7.44	30.69
Alabama	37,968,073	768,000	2.02	28.24
Alaska	4,965,839	175,000	3.52	29.91
Arizona	17,702,074	1,110,000	6.27	13.82
Arkansas	16,206,618	541,000	3.34	38.37
California	259,756,320	24,845,000	9.56	25.51
Colorado	28,923,050	950,000	3.28	34.00
Connecticut	39,124,769	1,317,000	3.37	19.46
Delaware	8,660,371	208,000	2.40	10.78
Dist. of C.	NA	NA	NA	31.94
Florida	94,466,988	12,025,000	12.73	34.49
Georgia	52,264,269	3,094,000	5.92	34.90
Hawaii	7,806,369	387,000	4.96	27.65
Idaho	7,307,127	85,000	1.16	22.67
Illinois	189,099,311	8,833,000	4.67	4.63
Indiana	35,810,152	573,000	1.60	29.45
Iowa	34,530,677	2,681,000	7.76	48.75
Kansas	19,623,161	912,000	4.65	47.28
Kentucky	34,479,088	2,703,000	7.84	32.06
Louisiana	32,175,081	2,403,000	7.47	17.44
Maine	15,796,302	338,000	2.14	36.85
Maryland	67,027,531	2,067,000	3.08	20.97
Massachusetts	128,815,407	2,560,000	1.99	17.76
Michigan	54,056,537	4,124,000	7.63	28.45
Minnesota	56,385,955	3,901,000	6.92	44.00
Mississippi	26,380,372	1,487,000	5.64	39.18
Missouri	45,208,574	1,283,000	2.84	22.25
Montana	8,569,050	88,000	1.03	27.04
Nebraska	12,512,758	381,000	3.04	37.16
Nevada	4,302,443	378,000	8.79	19.88
New Hampshire	7,492,673	366,000	4.88	21.25
New Jersey	42,542,030	1,856,000	4.36	29.91
New Mexico	10,191,833	342,000	3.36	13.76
New York	328,653,372	44,733,000	13.61	27.61
N. Carolina	99,029,216	7,407,000	7.48	48.59
N. Dakota	6,059,333	398,000	6.57	25.32
Ohio	139,092,332	16,989,000	12.21	47.57
Oklahoma	28,551,802	2,136,000	7.48	37.38
Oregon	27,512,230	2,445,000	8.89	30.12
Pennsylvania	172,056,004	7,726,000	4.49	33.15
Rhode Island	8,849,940	321,000	3.63	28.43
S. Carolina	24,757,946	309,000	1.25	17.98
S. Dakota	5,444,718	101,000	1.86	21.68
Tennessee	39,899,987	2,140,000	5.36	25.45
Texas	130,240,601	5,841,000	4.48	42.60
Utah	18,455,058	1,223,000	6.63	25.05
Vermont	9,355,445	76,000	.81	26.91
Virginia	44,987,840	2,248,000	5.00	45.72
Washington	53,491,851	3,198,000	5.98	26.45
W. Virginia	14,498,425	745,000	5.14	35.21
Wisconsin	71,469,433	12,565,000	17.58	39.93
Wyoming	4,632,798	44,000	.95	5.58
Puerto Rico	27,149,480	4,176,000	15.38	31.46

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Per student expenditures. Over three million adults were enrolled in vocational education in Fiscal year 1972; see Table 77. Almost $200 million of Federal, State, and local monies was expended in establishing and operating adult programs. The national average was $64.49 spent for each adult enrolled. Again, the States vary widely; the highest expenditure per person by a State was $319.90 (Illinois), while the lowest was $10.08 (Montana).

Table 77 - Federal and State/Local Expenditures Per Student in Adult Vocational Education, 1971-72

States	Federal and State/Local Adult Vocational Education Expenditures (Rounded)	Adult Vocational Education Enrollment	Expenditures per Student in Adult Vocational Education	Rank Order
U.S. TOTAL	197,602,000	3,064,030	64.49	
Alabama	768,000	44,543	17.24	44
Alaska	175,000	6,258	27.96	37
Arizona	1,110,000	14,209	78.12	10
Arkansas	541,000	42,292	12.79	48
California	24,845,000	311,663	79.72	8
Colorado	950,090	34,514	27.53	38
Connecticut	1,317,000	24,830	53.04	19
Delaware	208,000	4,025	51.68	20
Dist. of C.	NA	3,454	NA	NA
Florida	12,025,000	176,495	68.13	12
Georgia	3,094,000	101,120	30.60	36
Hawaii	387,000	11,100	34.86	32
Idaho	85,000	7,514	11.31	50
Illinois	8,833,000	27,612	319.90	1
Indiana	573,000	45,521	12.59	49
Iowa	2,681,000	65,052	41.21	28
Kansas	912,000	46,723	19.52	42
Kentucky	2,703,000	52,856	51.14	21
Louisiana	2,403,000	30,753	78.14	9
Maine	338,000	10,996	30.74	35
Maryland	2,067,000	34,809	59.38	15
Massachusetts	2,560,000	29,096	87.98	6
Michigan	4,124,000	97,584	42.26	27
Minnesota	3,901,000	103,118	37.83	29
Mississippi	1,487,000	42,930	34.64	33
Missouri	1,283,000	36,176	35.47	30
Montana	88,000	8,726	10.08	51
Nebraska	381,000	25,564	14.90	47
Nevada	378,000	4,098	92.24	5
New Hampshire	366,000	5,378	68.06	13
New Jersey	1,856,000	92,773	20.01	41
New Mexico	342,000	7,201	47.49	25
New York	44,733,000	208,321	214.73	2
N. Carolina	7,407,000	209,221	35.40	31
N. Dakota	398,000	8,263	48.17	24
Ohio	16,989,000	195,988	86.68	7
Oklahoma	2,136,000	40,145	53.21	18
Oregon	2,445,000	37,331	65.50	14
Pennsylvania	7,726,000	108,541	71.18	11
Rhode Island	321,000	5,684	56.47	16
S. Carolina	309,000	18,272	16.91	45
S. Dakota	101,000	4,831	20.91	40
Tennessee	2,140,000	38,493	55.59	17
Texas	5,841,000	265,484	22.00	39
Utah	1,223,000	25,270	48.40	22
Vermont	76,000	4,549	16.71	46
Virginia	2,248,000	123,352	18.22	43
Washington	3,198,000	66,334	48.21	23
W. Virginia	745,000	22,293	33.42	34
Wisconsin	12,565,000	101,227	124.13	4
Wyoming	44,000	988	44.53	26
Puerto Rico	4,176,000	30,460	137.10	3

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Table 78 depicts the manner in which Federal dollars were expended by the States for adult vocational education. The national average was $14.35 per adult; the highest expenditure of Federal monies by a State was $59.43 per adult. Three States spent no Federal money for adults; these States used only State and local dollars for the adult program.

Table 78 - Adult Federal Vocational Education Expenditures Per Student, 1971-72

States	Total Adult Federal Vocational Education Expenditures (Rounded)	Total Adult Vocational Education Enrollment	Adult Federal Vocational Education Expenditures Per Student	Rank Order
U.S. TOTAL	43,966,000	3,064,030	14.35	
Alabama	152,000	44,543	3.41	45
Alaska	64,000	6,258	10.23	29
Arizona	694,000	14,209	48.84	3
Arkansas	216,000	42,292	5.11	41
California	3,787,000	311,663	12.15	23
Colorado	208,000	34,514	6.03	34
Connecticut	319,000	24,830	12.85	21
Delaware	0	4,025	0.00	49
Dist. of C.	NA	3,454	NA	NA
Florida	426,000	176,495	2.41	47
Georgia	435,000	101,120	4.30	42
Hawaii	58,000	11,100	5.23	39
Idaho	45,000	7,514	5.99	35
Illinois	1,641,000	27,612	59.43	1
Indiana	521,000	45,521	11.45	25
Iowa	373,000	65,052	5.73	36
Kansas	462,000	46,723	9.89	30
Kentucky	741,000	52,856	14.02	18
Louisiana	1,165,000	30,753	37.88	7
Maine	127,000	10,996	11.55	24
Maryland	185,000	34,809	5.31	38
Massachusetts	539,000	29,096	18.52	15
Michigan	553,000	97,584	5.67	37
Minnesota	537,000	103,118	5.21	40
Mississippi	385,000	42,930	8.97	31
Missouri	461,000	36,176	12.74	22
Montana	13,000	8,726	1.49	48
Nebraska	110,000	25,564	4.30	43
Nevada	117,000	4,098	28.55	9
New Hampshire	253,000	5,378	47.04	4
New Jersey	323,000	92,773	3.48	44
New Mexico	152,000	7,201	21.11	14
New York	9,503,000	208,321	45.62	5
N. Carolina	0	209,221	0.00	50
N. Dakota	224,000	8,263	27.11	10
Ohio	6,195,000	195,988	31.61	8
Oklahoma	558,000	40,145	13.90	19
Oregon	256,000	37,331	6.86	33
Pennsylvania	1,187,000	108,541	10.94	27
Rhode Island	255,000	5,684	44.86	6
S. Carolina	147,000	18,272	8.05	32
S. Dakota	50,000	4,831	10.35	28
Tennessee	826,000	38,493	21.46	12
Texas	3,672,000	265,484	13.83	20
Utah	355,000	25,270	14.05	17
Vermont	0	4,549	0.00	51
Virginia	301,000	123,352	2.44	46
Washington	737,000	66,334	11.11	26
W. Virginia	325,000	22,293	14.58	16
Wisconsin	2,531,000	101,227	25.00	11
Wyoming	21,000	988	21.26	13
Puerto Rico	1,761,000	30,460	57.81	2

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Expenditures for the occupational areas in adult programs. Seven States provided financial data by occupational area for adult programs -- Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia.

For all occupational areas in adult vocational education, the highest expenditure of funds from all sources (i.e. Federal, State, and local monies) totaled $2,522,435 (Virginia). The lowest expenditure of funds from all sources was $77,210 (South Dakota). The total expended in the seven States was $4,317,580. The breakdown was: Federal -- $938,546; State -- $1,769,405; local -- $1,609,629; see Table 79.

Data were not as readily available from the seven States for the occupational areas found in adult programs. The reasons for the lack of data are not known. One can speculate that the low level of activity in adult education seen in other sections of this document is an indication that the level of activity is also low here. Furthermore, many of the occupational training programs offered in vocational education require hundreds of clock hours to complete. Few adults who are employed full time are able, or willing to engage in training which may stretch out over two, three, or more years. A third reason is that many schools do not schedule an adult vocational program, usually operated in the evening, which offers as many occupational alternatives as are found in the secondary program or the post-secondary program, which are usually offered during the day. Consequently, probably fewer adults take advantage of the options.

Expenditures for Programs for the Disadvantaged And the Handicapped in Vocational Education

In recent years, vocational educators have recognized that there are large numbers of persons in our society who, for a variety of reasons, cannot participate effectively in the regular program of vocational education. The Vocational Education Act of 1963 referred to these persons as having "special needs". The 1968 Amendments further differentiated by referring to disadvantaged persons and handicapped persons. The Amendments provided that these persons be identified individually, that monies be set aside specifically for their training; and that fiscal procedures document how and for what these expenditures were made. The following paragraphs and tables describe the ways in which States have reacted.

Table 79 - Adult Federal, State and Local Vocational Education Expenditures by Occupational Areas from Seven States, 1971-72

States	GRAND TOTAL				AGRICULTURE			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	938,546	1,769,405	1,609,629	4,317,580	106,199	181,429	224,930	512,558
Idaho[1]	43,470	38,500	0	81,970	2,050	1,957	0	4,007
Mississippi	69,856	732,259	221,413	1,023,528	45,000	18,376	3,895	67,271
Nebraska[2]	88,253	21,546	44,616	154,415	8,485	3,730	4,285	16,500
N. Dakota[3]	81,878	58,163	80,539	220,580	5,557	4,067	9,392	19,016
Oklahoma[5]	45,298	52,165	139,979	237,442	1,081	1,539	2,961	5,581
S. Dakota	38,605	0	38,605	77,210	1,941	0	1,941	3,882
Virginia	571,186	866,772	1,084,477	2,522,435	42,085	151,760	202,456	396,301

States	DISTRIBUTIVE EDUCATION				HEALTH OCCUPATIONS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	70,353	253,616	108,500	432,469	20,759	68,522	26,173	115,454
Idaho[1]	602	112	0	714	10,507	4,409	0	14,916
Mississippi	0	18,159	7,284	25,443	0	59,025	18,305	77,330
Nebraska[2]	377	177	185	739	7,420	3,330	3,659	14,409
N. Dakota[3]	744	0	744	1,488	228[4]	228	0	456
Oklahoma[5]	493	948	2,764	4,205	2,309	1,530	3,914	7,753
S. Dakota	658	0	658	1,316	295	0	295	590
Virginia	67,479	234,220	96,865	398,564				

[1] These figures do not include Administrative, Supervisory or Ancillary Services Expenditures.

[2] These figures do not include Ancillary Services, Diversified Occupations or Guidance Expenditures.

[3] These figures do not include Administration, Supervision, Guidance, Ancillary Services, Cooperative Education, nor special needs programs by occupational area.

[4] These figures include Technical Education Expenditures.

[5] These figures do not include Area School Expenditures or Administrative, Supervisory or Ancillary Services Expenditures.

Table 79 - Cont'd

States	CONSUMER & HOMEMAKING				OCCUPATIONAL HOME ECONOMICS			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	68,637	92,972	120,486	282,095	10,835	27,799	20,967	59,601
Idaho[1]	3,028	9,109	0	12,137	332	1,034	0	1,366
Mississippi					1,000	21,352	2,429	24,781
Nebraska[2]	52,720	7,249	25,017	84,986	4,487	239	4,275	9,001
N. Dakota[3]	6,060	5,968	7,133	19,161	400	531	0	931
Oklahoma[5]					3,683	4,643	13,330	21,656
S. Dakota	1,608	0	1,608	3,216	933	0	933	1,866
Virginia	5,221[6]	70,646[6]	86,728[6]	162,595				

States	OFFICE OCCUPATIONS				TECHNICAL EDUCATION			
	Federal	State	Local	Total	Federal	State	Local	Total
TOTALS	124,535	175,365	169,336	469,236	10,400	234,020	102,454	346,874
Idaho[1]	7,990	1,392	0	9,382	228	108	0	336
Mississippi	0	86,535	25,262	111,797	0	221,090	62,206	283,296
Nebraska[2]	3,593	1,750	1,781	7,124				
N. Dakota[3]	5,802	376	6,209	12,387				
Oklahoma[5]	2,486	5,994	12,406	20,886	10,172	12,822	40,248	63,242
S. Dakota	5,250	0	5,250	10,500				
Virginia	99,414	79,318	118,428	297,160				

States	TRADE & INDUSTRIAL EDUCATION			
	Federal	State	Local	Total
TOTALS	526,828	735,682	836,783	2,099,293
Idaho[1]	18,733	20,379	0	39,112
Mississippi	23,856	307,722	102,032	433,610
Nebraska[2]	11,171	5,071	5,414	21,656
N. Dakota[3]	63,087	46,993	57,061	167,141
Oklahoma[5]	25,074	24,689	64,356	114,119
S. Dakota	27,920	0	27,920	55,840
Virginia	356,987	330,828	580,000	1,267,815

[6] These figures include Occupational Home Economics Expenditures.

Source: Research collected from various States.

Expenditures for programs for the disadvantaged. In Table 80, expenditures of $286,786,154 for disadvantaged students are shown as 10.8 percent of total expenditures in vocational education. These are the summation of expenditures by State and local education agencies -- expenditures specifically identified as being for disadvantaged persons. The $286 million reported as expended was doubtless substantially exceeded. Many indirect expenditures went unaccounted for in those cases where disadvantaged persons were enrolled with regular students and no pro rata share was calculated and reported.

Table 80 - Federal and State/Local Expenditures for Disadvantaged Vocational Education Students as a Percent of Total Vocational Education Expenditures, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Disadvantaged Students	Percent of Total Vocational Education Expenditures	Rank Order
U.S. TOTAL	2,654,338,633	286,786,154	10.80	
Alabama	37,968,073	2,460,648	6.48	37
Alaska	4,965,839	1,889,534	38.05	1
Arizona	17,702,074	1,376,836	7.78	34
Arkansas	16,206,618	3,750,455	23.14	5
California	259,756,320	26,716,857	10.29	23
Colorado	28,923,050	1,556,440	5.38	40
Connecticut	39,124,769	6,085,519	15.55	13
Delaware	8,660,371	408,845	4.72	46
Dist. of C.	NA	NA	NA	NA
Florida	94,466,988	11,995,108	12.70	16
Georgia	52,264,269	4,486,004	8.58	30
Hawaii	7,806,369	720,012	9.22	28
Idaho	7,307,127	469,150	6.42	38
Illinois	189,099,311	22,266,374	11.77	19
Indiana	35,810,152	7,022,138	19.61	8
Iowa	34,530,677	2,899,553	8.40	31
Kansas	19,623,161	967,980	4.93	43
Kentucky	34,479,088	2,323,850	6.74	35
Louisiana	32,175,081	7,310,553	22.72	6
Maine	15,796,302	765,556	4.85	44
Maryland	67,027,531	6,219,014	9.28	27
Massachusetts	128,815,407	2,957,052	2.30	50
Michigan	54,056,557	1,893,034	3.50	48
Minnesota	56,385,955	3,223,562	5.72	39
Mississippi	26,380,372	2,174,002	8.24	32
Missouri	45,208,574	2,378,053	5.26	41
Montana	8,569,050	441,922	5.16	42
Nebraska	12,512,758	1,278,967	10.22	24
Nevada	4,302,443	809,014	18.80	9
New Hampshire	7,492,673	906,864	12.10	18
New Jersey	42,542,030	5,215,873	12.26	17
New Mexico	10,191,833	2,614,844	25.66	4
New York	328,653,372	55,889,195	17.01	10
N. Carolina	99,029 216	3,277,737	3.31	49
N. Dakota	6,059,333	784,720	12.95	15
Ohio	139,092,332	22,052,457	15.85	12
Oklahoma	28,551,802	8,461,997	29.64	2
Oregon	27,512,230	1,223,388	4.45	47
Pennsylvania	172,056,004	15,033,532	8.74	29
Rhode Island	8,849,940	1,182,534	13.36	14
S. Carolina	24,757,946	2,849,089	11.51	21
S. Dakota	5,444,718	1,408,973	25.88	3
Tennessee	39,899,987	3,864,142	9.68	26
Texas	130,240,601	12,624,828	9.69	25
Utah	18,455,058	1,520,870	8.24	33
Vermont	9,355,445	1,100,981	11.77	20
Virginia	44,987,840	9,612,126	21.37	7
Washington	53,491,851	693,550	1.30	51
W. Virginia	14,498,425	1,523,414	10.51	22
Wisconsin	71,469,433	3,414,394	4.78	45
Wyoming	4,632,798	308,650	6.66	36
Puerto Rico	27,149,480	4,375,964	16.12	11

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Expenditures for programs for the handicapped. In Table 81, expenditures for the handicapped in vocational education are shown as $66,138,395 -- or 2.49 percent of total expenditures for vocational education. Interestingly, there is an unusually high degree of uniformity in the spending for the handicapped in the States. For example, thirty-one of the States reporting show expenditures which are between 1.5 percent and 3.5 percent.

Table 81 - Federal and State/Local Expenditures for Handicapped Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1971-72

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Handicapped Students	Percent of Total Vocational Education Expenditures	Rank Order
U.S. TOTAL	2,654,338,633	66,138,395	2.49	
Alabama	37,968,073	1,089,871	2.87	23
Alaska	4,965,839	147,465	2.97	20
Arizona	17,702,074	565,128	3.19	16
Arkansas	16,206,618	904,161	5.58	6
California	259,756,320	5,170,677	1.99	38
Colorado	28,923,050	1,363,464	4.71	8
Connecticut	39,124,769	629,165	1.61	43
Delaware	8,660,371	258,851	2.99	19
Dist. of C.	NA	NA	NA	NA
Florida	94,466,988	3,254,498	3.45	14
Georgia	52,264,269	1,572,443	3.01	17
Hawaii	7,806,369	184,698	2.37	29
Idaho	7,307,127	149,190	2.04	36
Illinois	189,099,311	4,474,563	2.37	30
Indiana	35,810,152	1,427,379	3.99	11
Iowa	34,530,677	918,141	2.66	24
Kansas	19,623,161	353,585	1.80	41
Kentucky	34,479,088	806,800	2.34	31
Louisiana	32,175,081	2,170,696	6.75	2
Maine	15,796,302	229,404	1.45	45
Maryland	67,027,531	1,348,105	2.01	37
Massachusetts	128,815,407	1,802,002	1.40	46
Michigan	54,056,557	415,356	.77	50
Minnesota	56,385,955	1,254,602	2.23	35
Mississippi	26,380,372	645,337	2.45	28
Missouri	45,208,574	334,013	.74	51
Montana	8,569,050	215,215	2.51	27
Nebraska	12,512,758	547,176	4.37	10
Nevada	4,302,443	400,139	9.30	1
New Hampshire	7,492,673	345,663	4.61	9
New Jersey	42,542,030	2,561,905	6.02	3
New Mexico	10,191,833	595,535	5.84	4
New York	328,653,372	9,868,739	3.00	18
N. Carolina	99,029,216	1,681,030	1.70	42
N. Dakota	6,059,333	220,498	3.64	12
Ohio	139,092,332	1,944,266	1.40	47
Oklahoma	28,551,802	758,869	2.66	25
Oregon	27,512,230	627,735	2.28	34
Pennsylvania	172,056,004	3,960,570	2.30	33
Rhode Island	8,849,940	163,923	1.85	40
S. Carolina	24,757,946	713,888	2.88	21
S. Dakota	5,444,718	259,967	4.77	7
Tennessee	39,899,987	1,361,195	3.41	15
Texas	130,240,601	3,439,207	2.64	26
Utah	18,455,058	368,123	1.99	39
Vermont	9,355,445	76,394	.82	49
Virginia	44,987,840	1,042,720	2.32	32
Washington	53,491,851	460,653	.86	48
W. Virginia	14,498,425	811,673	5.60	5
Wisconsin	71,469,433	1,126,258	1.58	44
Wyoming	4,632,798	133,294	2.88	22
Puerto Rico	27,149,480	984,166	3.62	13

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Comparison of Increased Expenditures to Increased Enrollment

During the past ten years there have been two major legislative acts in vocational education. These were the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968. These acts have provided much needed enabling legislation and the Federal funding which has permitted the field of vocational education to get in step with the latter half of the twentieth century.

Without going into a comparative analysis of earlier and later legislation, let it suffice to say that vocational education is, if not new, then wholly revitalized. Consequently, one can expect marked differences in earlier and current activities in the field and the resulting statistical data.

Expenditures and enrollment: Fiscal years 1962 to 1972. Table 82 documents one of these marked differences -- from Federal expenditures of $51 million in Fiscal year 1962 to Federal expenditures of $464 million in 1972, a growth of 800 percent. While the States have not benefited equally, no State shows a Federal expenditure increase of less than 300 percent, and seven States show increases of over 1,000 percent.

Federal funds are distributed to States through an allocation formula administered by the U.S. Office of Education. State population, including growth or loss in numbers of residents, plays a large part in the formula. That formula has changed markedly in the decade under consideration. Few States have expended all of their allocations; most States carry over sums to the next Fiscal year; and most States fail to claim a small percent of their total allotment. These reasons, and probably others, account for the wide variation in the percent of increase in Federal funds in the States.

During the same ten-year period, total enrollment in vocational education has increased 145 percent, Table 82. Table 83 shows that expenditure has increased 659.5 percentage points more than enrollments. The enrollment changes among the States are no less dramatic than the expenditure changes. One State, South Carolina, has actually decreased by 13.7 percent; another State, Mississippi, has grown by only 14.7 percent. Contrast this with Alaska, New Jersey, and Maryland, which have increased enrollments by 939.5 percent, 793.4 percent, and 461.9 percent respectively.

Table 82 - Percent of Increase in Total Federal Expenditures for Vocational Education Compared With Percent of Increase in Total Vocational Education Enrollments, 1962-72

States	Federal Expenditures 1961-62	Federal Expenditures 1971-72	Percent of Increase in Federal Expenditures 1962-72	Vocational Education Enrollment 1961-62	Vocational Education Enrollment 1971-72	Percent of Increase in Vocational Education Enrollment 1962-72
U.S. TOTAL	51,337,231	464,487,460	804.78	4,069,771	9,984,416	145.33
Alabama	1,101,809	10,440,569	847.58	94,977	157,746	66.09
Alaska	118,583	911,311	668.50	2,013	20,926	939.54
Arizona	284,829	4,280,991	1,403.00	30,500	102,806	237.07
Arkansas	779,456	5,383,869	590.72	92,129	110,224	19.64
California	3,460,879	37,514,372	983.96	455,419	1,221,509	168.22
Colorado	509,952	4,902,324	861.33	55,318	101,521	83.52
Connecticut	785,328	3,872,558	393.11	30,834	127,609	313.86
Delaware	247,280	1,195.561	383.48	11,285	37,323	230.73
Dist. of C.	164,297	NA	NA	8,050	10,813	34.32
Florida	1,152,587	14,776,776	1,182.05	146,620	511,750	249.03
Georgia	1,543,407	15,285,261	890.36	165,044	289,741	75.55
Hawaii	207,056	2,261,254	992.10	20,276	40,142	97.98
Idaho	347,550	2,418,909	595.99	15,597	33,146	112.52
Illinois	2,004,472	19,847,913	890.18	115,948	595,879	413.92
Indiana	1,083,638	11,607,997	971.21	74,564	154,556	107.28
Iowa	1,025,314	6,323,342	516.72	65,944	133,442	102.36
Kansas	644,117	5,236,133	712.92	42,842	98,819	130.66
Kentucky	1,122,311	9,282,385	727.08	69,092	164,869	138.62
Louisiana	1,447,451	10,493,320	624.95	92,850	176,312	89.89
Maine	268,[illegible]5	2,582,996	860.28	8,192	29,840	264.26
Maryland	620,402	7,062,959	1,038.45	29,551	166,032	461.85
Massachusetts	950,303	10,243,249	977.89	69,424	163,799	135.94
Michigan	1,940,366	12,704,063	554.73	142,475	342,985	140.73
Minnesota	1,165,163	8,957,851	668.81	97,113	234,334	141.30
Mississippi	1,017,029	7,431,764	630.73	95,546	109,561	14.67
Missouri	1,223,146	10,025,232	719.63	67,500	162,625	140.93
Montana	235,777	2,181,716	825.33	10,199	32,267	216.37
Nebraska	570,172	3,691,407	547.42	31,122	68,796	121.05
Nevada	255,744	1,205,099	371.21	7,380	20,617	179.36
New Hampshire	264,654	1,686,373	537.20	7,595	25,310	233.25
New Jersey	1,094,543	13,574,480	1,140.20	34,720	310,186	793.39
New Mexico	282,674	3,253,903	1,051.12	11,648	52,338	349.33
New York	3,301,196	33,816,266	924.36	194,821	754,489	287.27
N. Carolina	2,531,662	15,634,072	517.54	165,700	430,626	159.88
N. Dakota	365,935	2,127,346	481.35	17,146	32,637	90.35
Ohio	2,156,780	22,497,469	943.10	126,193	412,007	226.49
Oklahoma	1,028,955	7,787,704	656.86	71,149	107,395	50.94
Oregon	552,974	5,209,528	842.09	33,293	123,936	272.26
Pennsylvania	2,591,086	27,661,281	967.56	110,606	327,458	196.06
Rhode Island	176,756	1,760,944	896.26	8,504	19,992	135.09
S. Carolina	1,030,627	9,382,521	810.37	117,802	101,615	-13.74
S. Dakota	292,167	2,134,896	630.71	13,062	22,287	70.62
Tennessee	1,344,981	9,474,245	604.42	109,379	151,226	38.26
Texas	2,216,849	26,193,555	1,081.57	398,750	623,214	56.29
Utah	250,888	3,108,991	1,139.19	30,073	100,874	235.43
Vermont	231,816	953,379	311.27	6,763	16,903	149.93
Virginia	1,240,448	12,243,977	887.06	106,459	269,799	153.43
Washington	998,274	8,984,173	799.97	121,988	250,802	105.60
W. Virginia	637,797	5,233,603	720.58	31,856	63,312	98.74
Wisconsin	1,330,163	9,190,528	590.93	122,309	253,495	107.26
Wyoming	178,199	846,273	374.90	7,072	17,694	150.20
Puerto Rico	960,404	9,610,772	900.70	75,079	96,832	28.97

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ended June 30, 1962, U.S. Office of Education, U.S. Department of Health, Education, & Welfare, Washington, D.C., 1963.

Table 83 - Percent of Increase in Total Vocational Education Enrollments Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1962-72

States	Percent of Increase in Federal Expenditures 1962-72	Percent of Increase in Vocational Education Enrollment 1962-72	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment	Rank Order of Difference
U.S. TOTAL	804.78	145.33	659.45	
Alabama	847.58	66.09	781.49	12
Alaska	668.50	939.54	-271.04	51
Arizona	1,403.00	237.07	1,165.93	1
Arkansas	590.72	19.64	571.08	30
California	983.96	168.22	815.74	10
Colorado	861.33	83.52	777.81	13
Connecticut	393.11	313.86	79.25	50
Delaware	383.48	230.73	152.75	49
Dist. of C.	NA	34.32	NA	NA
Florida	1,182.05	249.03	933.02	3
Georgia	890.36	75.55	814.81	11
Hawaii	992.10	97.98	894.12	5
Idaho	595.99	112.52	483.47	37
Illinois	890.18	413.92	476.26	38
Indiana	971.21	107.28	863.93	7
Iowa	516.72	102.36	414.36	40
Kansas	712.92	130.66	582.26	27
Kentucky	727.08	138.62	588.46	26
Louisiana	624.95	89.89	535.06	34
Maine	860.28	264.26	596.02	25
Maryland	1,038.45	461.85	576.60	29
Massachusetts	977.89	135.94	841.95	8
Michigan	554.73	140.73	414.00	41
Minnesota	668.81	141.30	527.51	35
Mississippi	630.73	14.67	616.06	22
Missouri	719.63	140.93	578.70	28
Montana	825.33	216.37	608.96	23
Nebraska	547.42	121.05	426.37	39
Nevada	371.21	179.36	191.85	47
New Hampshire	537.20	233.25	303.95	45
New Jersey	1,140.20	793.39	346.81	44
New Mexico	1,051.12	349.33	701.79	18
New York	924.36	287.27	637.09	20
N. Carolina	517.54	159.88	357.66	43
N. Dakota	481.35	90.35	391.00	42
Ohio	943.10	226.49	716.61	17
Oklahoma	656.86	50.94	605.92	24
Oregon	842.09	272.26	569.83	31
Pennsylvania	967.56	196.06	771.50	14
Rhode Island	896.26	135.09	761.17	15
S. Carolina	810.37	-13.74	824.11	9
S. Dakota	630.71	70.62	560.09	33
Tennessee	604.42	38.26	566.16	32
Texas	1,081.57	56.29	1,025.28	2
Utah	1,139.19	235.43	903.76	4
Vermont	311.27	149.93	161.34	48
Virginia	887.06	153.43	733.63	16
Washington	799.97	105.60	694.37	19
W. Virginia	720.58	98.74	621.84	21
Wisconsin	590.93	107.26	483.67	36
Wyoming	374.90	150.20	224.70	46
Puerto Rico	900.70	28.97	871.73	6

Source: Table 105.

Expenditures and enrollment: Fiscal years 1962 to 1967; Fiscal years 1967 to 1972. Before commenting on these enrollment changes, it is perhaps advisable to view the data a second way.

By dividing the ten-year span from Fiscal year 1962 to 1972 into two five-year periods, it is possible to examine the growth in smaller segments. Tables 84, 85, 86, and 87 allow this examination.

In the first five-year period, Federal expenditures increased over 400 percent; see Table 84. It was during this time that the 1963 Act was passed and that funding -- Federal, State, and local -- began to approach realistic levels. Also, during the period from 1962 to 1967, enrollment increased seventy-three percent, or almost fifteen percent per year. (Notice that some States decreased in enrollment.) The result is shown on Table 85, a 333.5 percentage point increase of the expenditure of Federal funds over the increase in enrollment.

During the second five-year period, Fiscal years 1967 to 1972, expenditure of Federal funds increased by 78.6 percent; see Table 86. The result is shown on Table 87, a 36.8 percentage point increase in expenditures in excess of increase in enrollment.

Expenditures and enrollment: Fiscal years 1966 to 1972. The foregoing is one way of comparing enrollment growth with expenditure growth. Now consider another way as illustrated in Graphs 27 and 28. In the period from Fiscal year 1966 to 1972, total enrollment in vocational education has grown from 6.1 million to 9.9 million, which is 64.4 percent; Graph 27. In the same period, expenditure of Federal funds has increased from $234 million to $464 million, which is 98.6 percent; Graph 28. Thus, the increase in expenditures is 34.2 percentage points in excess of enrollment increase.

But look again at the expenditure of Federal funds. The Federal funds expended were current market dollars before allowance for the diminished buying power which is a part of the inflated economy. When the $464 million expenditure of Federal monies is adjusted using the Consumer Price Index (1.000 for 1966; 0.7628 for 1972) the actual buying power of the 1972 Federal money is $353,939,994; this sum is a 51.3 percent "buying power" increase. Therefore, enrollment exceeded expenditures by 12.1 percentage points.

Table 84 - Percent of Increase in Federal Expenditures for Vocational Education Compared With Percent of Increase in Total Vocational Education Enrollment, 1962-67

States	Federal Expenditures 1961-62	Federal Expenditures 1966-67	Percent of Increase in Federal Expenditures 1962-67	Vocational Education Enrollment 1961-62	Vocational Education Enrollment 1966-67	Percent of Increase in Vocational Education Enrollment 1962-67
U.S. TOTAL	51,337,231	260,043,027	406.54	4,069,771	7,041,985	73.03
Alabama	1,101,809	5,771,358	423.81	94,977	126,589	33.28
Alaska	118,583	483,790	307.98	2,013	6,103	203.18
Arizona	284,829	2,198,035	671.70	30,500	50,739	66.36
Arkansas	779,456	3,386,150	334.43	92,129	91,519	-.66
California	3,460,879	18,506,143	434.72	455,419	951,862	109.01
Colorado	509,952	2,545,768	399.22	55,318	78,025	41.05
Connecticut	785,328	2,789,779	255.24	30,834	90,593	193.81
Delaware	247,280	622,021	151.55	11,285	16,997	50.62
Dist. of C.	164,297	803,250	388.90	8,050	9,584	19.06
Florida	1,152,587	7,562,067	556.10	146,620	306,390	108.97
Georgia	1,543,407	7,522,330	387.39	165,044	249,202	50.99
Hawaii	207,056	1,087,501	425.22	20,276	17,208	-15.13
Idaho	347,550	1,281,243	268.65	15,597	23,293	49.34
Illinois	2,004,472	11,137,024	455.61	115,948	180,696	55.84
Indiana	1,083,638	5,538,925	411.14	74,564	81,711	8.14
Iowa	1,025,314	4,451,967	334.21	65,944	80,456	22.01
Kansas	644,117	3,188,024	394.95	42,842	58,635	36.86
Kentucky	1,122,311	5,761,726	413.38	69,092	94,903	37.36
Louisiana	1,447,451	5,646,998	290.13	92,850	121,915	31.30
Maine	268,985	1,473,198	447.69	8,192	21,582	163.45
Maryland	620,402	4,099,334	560.75	29,551	162,393	449.54
Massachusetts	950,303	5,562,253	485.31	69,424	135,564	95.27
Michigan	1,940,366	10,329,557	432.35	142,475	263,844	85.19
Minnesota	1,165,163	5,353,925	359.50	97,113	138,653	42.78
Mississippi	1,017,029	4,542,192	346.61	95,546	106,263	11.22
Missouri	1,223,146	6,037,387	393.60	67,500	101,554	50.45
Montana	235,777	1,049,498	345.12	10,199	14,654	43.68
Nebraska	570,172	2,287,021	301.11	31,122	43,812	40.78
Nevada	255,744	615,762	140.77	7,380	17,939	143.08
New Hamp.	264,654	1,001,907	278.57	7,595	10,879	43.24
New Jersey	1,094,543	6,737,067	515.51	34,720	175,171	404.52
New Mexico	282,674	1,647,311	482.76	11,648	22,390	92.22
New York	3,301,196	17,733,617	437.19	194,821	595,980	205.91
N. Carolina	2,531,662	9,158,504	261.76	165,700	271,098	63.61
N. Dakota	365,935	1,306,178	256.94	17,146	20,656	20.47
Ohio	2,156,780	12,524,550	480.71	126,193	243,818	93.21
Oklahoma	1,028,955	3,953,429	284.22	71,149	88,885	24.93
Oregon	552,974	2,638,073	377.07	33,293	58,638	76.13
Pennsylvania	2,591,086	13,804,198	432.76	110,606	270,253	144.34
Rhode Island	176,756	1,201,373	579.68	8,504	9,061	6.55
S. Carolina	1,030,627	4,783,805	364.17	117,802	128,569	9.14
S. Dakota	292,167	1,321,866	352.44	13,062	17,427	33.42
Tennessee	1,344,981	6,627,322	392.75	109,379	124,688	14.00
Texas	2,216,849	15,824,048	613.81	398,750	568,380	42.54
Utah	250,888	1,519,457	505.63	30,073	63,455	111.00
Vermont	231,816	742,839	220.44	6,763	9,774	44.52
Virginia	1,240,448	7,052,013	468.51	106,459	197,363	85.39
Washington	998,274	3,930,934	293.77	121,988	208,003	70.51
W. Virginia	637,797	3,203,706	402.31	31,856	50,563	58.72
Wisconsin	1,330,163	5,807,777	336.62	122,309	150,141	22.76
Wyoming	178,199	616,735	246.09	7,072	9,536	34.84
Puerto Rico	960,404	5,272,092	448.95	75,079	104,579	39.29

Source: Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ended June 30, 1962, U.S. Office of Education, U.S. Department of Health, Education, & Welfare, Washington, D.C., 1963.
Vocational and Technical Education Annual Report/Fiscal Year 1967, U.S. Office of Education, U.S. Department of Health, Education, & Welfare, Washington, D.C. 1969.

Table 85 - Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1962-67

States	Percent of Increase in Federal Expenditures 1962-67	Percent of Increase in Total Vocational Education Enrollment 1962-67	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment	Rank Order
U.S. TOTAL	406.54	73.03	333.51	
Alabama	423.81	33.28	390.53	11
Alaska	307.98	203.18	104.80	49
Arizona	671.70	66.36	605.34	1
Arkansas	334.43	-.66	335.09	26
California	434.72	109.01	325.71	27
Colorado	399.22	41.05	358.17	18
Connecticut	255.24	193.81	61.43	51
Delaware	151.55	50.62	100.93	50
Dist. of C.	388.90	19.06	369.84	17
Florida	556.10	108.97	447.13	4
Georgia	387.39	50.99	336.40	24
Hawaii	425.22	-15.13	440.35	5
Idaho	268.65	49.34	219.31	43
Illinois	455.61	55.84	399.77	8
Indiana	411.14	8.14	403.00	6
Iowa	334.21	22.01	312.20	31
Kansas	394.95	36.86	358.09	19
Kentucky	413.38	37.36	376.02	16
Louisiana	290.13	31.30	258.83	38
Maine	447.69	163.45	284.24	35
Maryland	560.75	449.54	111.21	47
Massachusetts	485.31	95.27	390.04	12
Michigan	432.35	85.19	347.16	21
Minnesota	359.50	42.78	316.72	29
Mississippi	346.61	11.22	335.39	25
Missouri	393.60	50.45	343.15	23
Montana	345.12	43.68	301.44	32
Nebraska	301.11	40.78	260.33	36
Nevada	140.77	143.08	-2.31	52
New Hampshire	278.57	43.24	235.33	40
New Jersey	515.51	404.53	110.98	48
New Mexico	482.76	92.22	390.54	10
New York	437.19	205.91	231.28	41
N. Carolina	261.76	63.61	198.15	45
N. Dakota	256.94	20.47	236.47	39
Ohio	480.71	93.21	387.50	13
Oklahoma	284.22	24.93	259.29	37
Oregon	377.07	76.13	300.94	33
Pennsylvania	432.76	144.34	288.42	34
Rhode Island	579.68	6.55	573.13	2
S. Carolina	364.17	9.14	355.03	20
S. Dakota	352.44	33.42	319.02	28
Tennessee	392.75	14.00	378.75	15
Texas	613.81	42.54	571.27	3
Utah	505.63	111.00	394.63	9
Vermont	220.44	44.52	175.92	46
Virginia	468.51	85.39	383.12	14
Washington	293.77	70.51	223.26	42
W. Virginia	402.31	58.72	343.59	22
Wisconsin	336.62	22.76	313.86	30
Wyoming	246.09	34.84	211.25	44
Puerto Rico	448.95	39.29	409.66	7

Source: Table 84.

Table 86 - Percent of Increase in Total Federal Expenditures for Vocational Education Compared With Percent of Increase in Total Vocational Education Enrollment, 1967-72

States	Federal Expenditures 1966-67	Federal Expenditures 1971-72	Percent of Increase in Federal Expenditures 1967-72	Vocational Education Enrollment 1966-67	Vocational Education Enrollment 1971-72	Percent of Increase in Vocational Education Enrollment 1967-72
U.S. TOTAL	260,043,027	464,487,460	78.62	7,041,985	9,984,416	41.78
Alabama	5,771,358	10,440,569	80.90	126,589	157,746	24.61
Alaska	483,790	911,311	88.37	6,103	20,926	242.88
Arizona	2,198,035	4,280,991	94.76	50,739	102,806	102.62
Arkansas	3,386,150	5,383,869	59.00	91,519	110,224	20.44
California	18,506,143	37,514,372	102.71	951,862	1,221,509	28.33
Colorado	2,545,768	4,902,324	92.57	78,025	101,521	30.11
Connecticut	2,789,779	3,872,558	38.81	90,593	127,609	40.86
Delaware	622,021	1,195,561	92.21	16,997	37,323	119.59
Dist. of C.	803,250	NA	NA	9,584	10,813	12.82
Florida	7,562,067	14,776,776	95.41	306,390	511,750	67.03
Georgia	7,522,330	15,285,261	103.20	249,202	289,741	16.27
Hawaii	1,087,501	2,261,254	107.93	17,208	40,142	133.28
Idaho	1,281,243	2,418,909	88.79	23,293	33,146	42.30
Illinois	11,137,024	19,847,913	78.22	180,696	595,879	229.77
Indiana	5,538,925	11,607,997	109.57	81,711	154,556	89.15
Iowa	4,451,967	6,323,342	42.03	80,456	133,442	65.86
Kansas	3,188,024	5,236,133	64.24	59,635	98,819	68.53
Kentucky	5,761,726	9,282,385	61.10	94,903	164,869	73.72
Louisiana	5,646,998	10,493,320	85.82	121,915	176,312	44.62
Maine	1,473,198	2,582,996	75.33	21,582	29,840	38.26
Maryland	4,099,334	7,062,959	72.30	162,393	166,032	2.24
Massachusetts	5,562,253	10,243,249	84.16	135,564	163,799	20.83
Michigan	10,329,557	12,704,063	22.99	263,844	342,985	30.00
Minnesota	5,353,925	8,957,851	67.31	138,653	234,334	69.01
Mississippi	4,542,192	7,431,764	63.62	106,263	109,561	3.10
Missouri	6,037,387	10,025,232	66.05	101,554	162,625	60.14
Montana	1,049,498	2,181,716	107.88	14,654	32,267	120.19
Nebraska	2,287,021	3,691,407	61.41	43,812	68,796	57.03
Nevada	615,762	1,205,099	95.71	17,939	20,617	14.93
New Hampshire	1,001,907	1,686,373	68.32	10,879	25,310	132.65
New Jersey	6,737,067	13,574,480	101.49	175,171	310,186	77.08
New Mexico	1,647,311	3,253,903	97.53	22,390	52,338	133.76
New York	17,733,617	33,816,266	90.69	595,980	754,489	26.60
N. Carolina	9,158,504	15,634,072	70.71	271,098	430,626	58.85
N. Dakota	1,306,178	2,127,346	62.87	20,656	32,637	58.00
Ohio	12,524,550	22,479,469	79.62	243,818	412,007	68.98
Oklahoma	3,953,429	7,787,704	96.99	88,885	107,395	20.83
Oregon	2,638,073	5,209,528	97.47	58,638	123,936	111.36
Pennsylvania	13,804,198	27,661,281	100.38	270,253	327,458	21.17
Rhode Island	1,201,373	1,760,944	46.58	9,061	19,992	120.64
S. Carolina	4,783,805	9,382,521	96.13	128,569	101,615	-20.97
S. Dakota	1,321,866	2,134,896	61.51	17,427	22,287	27.89
Tennessee	6,627,322	9,474,245	42.96	124,688	151,226	21.28
Texas	15,824,048	26,193,555	65.53	568,380	623,214	9.65
Utah	1,519,457	3,108,991	104.61	63,455	100,874	58.97
Vermont	742,839	953,379	28.34	9,774	16,903	72.94
Virginia	7,052,013	12,243,977	73.62	197,363	269,799	36.70
Washington	3,930,934	8,984,173	128.55	208,003	250,802	20.58
W. Virginia	3,203,706	5,233,603	63.36	50,563	63,312	25.21
Wisconsin	5,807,777	9,190,528	58.25	150,141	253,495	68.84
Wyoming	616,735	846,273	37.22	9,536	17,694	85.55
Puerto Rico	5,272,092	9,610,772	82.30	104,579	96,832	-7.41

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

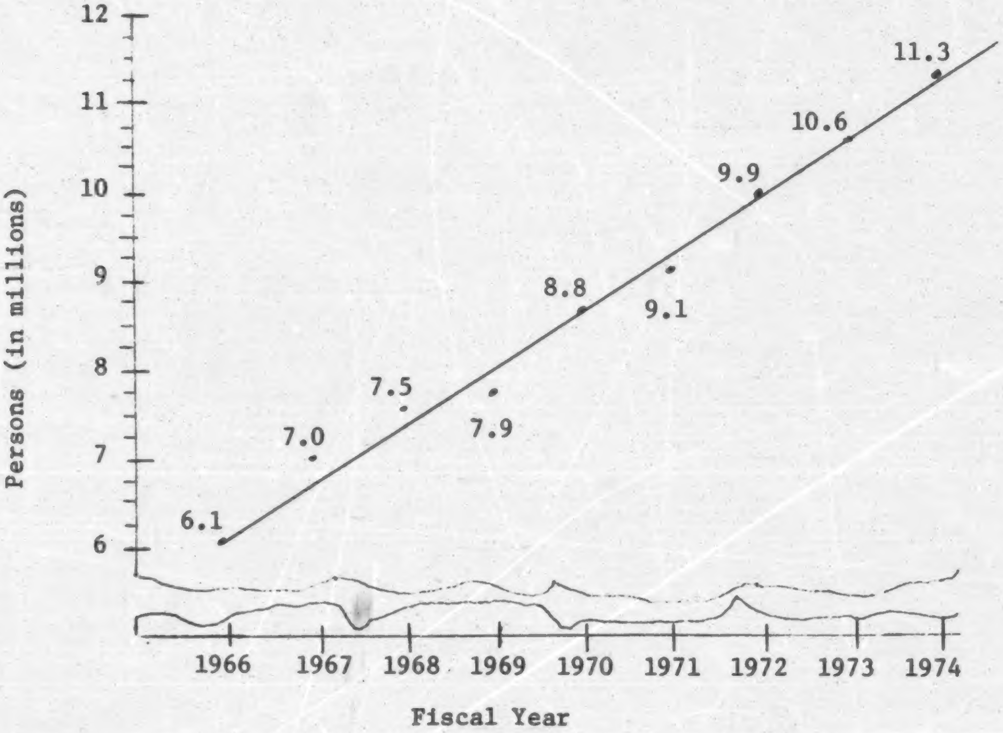
Vocational and Technical Education Annual Report/Fiscal Year 1967, U.S. Office of Education, U.S. Department of Health, Education, & Welfare, Washington, D.C., 1969.

Table 87 - Percent of Increase in Total Vocational Education Enrollment Compared With Percent of Increase in Total Federal Expenditures for Vocational Education, 1967-72

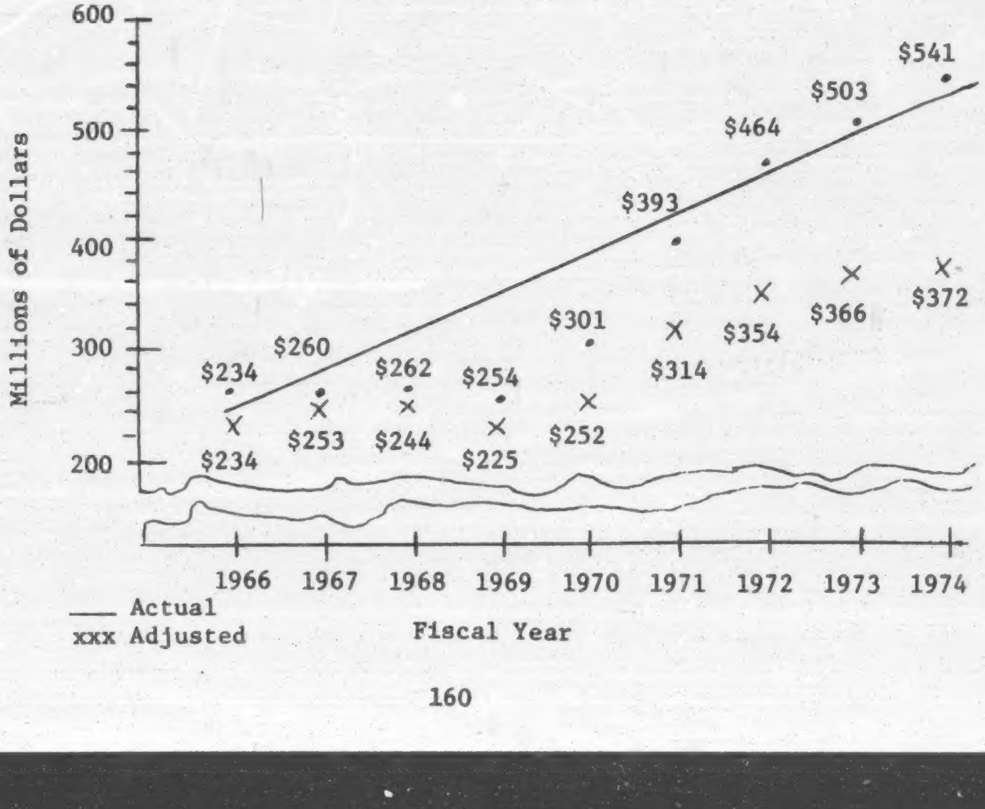
States	Percent of Increase in Federal Expenditures 1967-72	Percent of Increase in Total Vocational Education Enrollment 1967-72	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment	Rank Order of Difference
U.S. TOTAL	78.62	41.78	36.84	
Alabama	80.90	24.61	56.29	15
Alaska	88.37	242.88	-154.51	51
Arizona	94.76	102.62	-7.86	38
Arkansas	59.00	20.44	38.56	20
California	102.71	28.33	74.38	9
Colorado	92.57	30.11	62.46	13
Connecticut	38.81	40.86	-2.05	35
Delaware	92.21	119.59	-27.38	45
Dist. of C.	NA	12.82	NA	NA
Florida	95.41	67.03	28.38	25
Georgia	103.20	16.27	86.93	5
Hawaii	107.93	133.28	-25.35	44
Idaho	88.79	42.30	46.49	17
Illinois	78.22	229.77	151.55	1
Indiana	109.57	89.15	20.42	28
Iowa	42.03	65.86	-23.83	43
Kansas	64.24	68.53	-4.29	36
Kentucky	61.10	73.72	-12.62	41
Louisiana	85.82	44.62	41.20	19
Maine	75.33	38.26	37.07	22
Maryland	72.30	2.24	70.06	10
Massachusetts	84.16	20.83	63.33	12
Michigan	22.99	30.00	-7.01	37
Minnesota	67.31	69.01	-1.70	34
Mississippi	63.62	3.10	60.52	14
Missouri	66.05	60.14	5.91	31
Montana	107.88	120.19	-12.31	40
Nebraska	61.41	57.03	4.38	33
Nevada	95.71	14.93	80.78	6
New Hampshire	68.32	132.65	-64.33	49
New Jersey	101.49	77.08	24.41	26
New Mexico	97.53	133.76	-36.23	46
New York	90.69	26.60	64.09	11
N. Carolina	70.71	58.85	11.86	29
N. Dakota	62.87	58.00	4.87	32
Ohio	79.62	68.98	10.64	30
Oklahoma	96.99	20.83	76.16	8
Oregon	97.47	111.36	-13.89	42
Pennsylvania	100.38	21.17	79.21	7
Rhode Island	46.58	120.64	-74.06	50
S. Carolina	96.13	-20.97	117.10	2
S. Dakota	61.51	27.89	33.62	24
Tennessee	42.96	21.28	21.68	27
Texas	65.53	9.65	55.88	16
Utah	104.61	58.97	45.64	18
Vermont	28.34	72.94	-44.60	47
Virginia	73.62	36.70	36.92	23
Washington	128.55	20.58	107.97	3
W. Virginia	63.36	25.21	38.15	21
Wisconsin	58.25	68.84	-10.59	39
Wyoming	37.22	85.55	-48.33	48
Puerto Rico	82.30	-7.41	89.71	4

Source: Table 86.

Graph 27 - Total Enrollment in Vocational Education FY 1966 to FY 1972 with Projections for 1973 and 1974



Graph 28 - Federal Expenditures in Vocational Education FY 1966 to FY 1972 with Projections for 1973 and 1974



COMPLETION AND PLACEMENT

Vocational educators have always acknowledged that one of the key measures of the usefulness of vocational education was the record of the placement of trainees. While acknowledging the importance of placement, vocational educators have not always actively and accurately followed up trainees and documented placement. When quality follow-up studies have been carried on, little public dissemination has been made.

Not having strong data on placement of vocational trainees, the general public and certain key individuals have been inclined to accept statements of the adversaries of vocational education who deny the validity of vocational education. Additionally, studies such as Work in America that declare vocational education to be of no use go largely unrefuted.

The data in the following tables clearly support the significant placement record of vocational education and go a long way in refuting the ill-grounded critics.

Placement of Persons Who Have Completed Programs Offered In Secondary, Post-secondary, and Adult Vocational Education

The placement percentages of persons who were enrolled in vocational education in Fiscal year 1972 are presented in Tables 88, 89, 90, and 91. Placement refers to persons who are employed following training. While the goal is to have 100 percent completions of training and 100 percent immediate placement it is recognized that this does not occur. Some students develop a renewed interest in all of education and enter higher level programs, as shown in column 5 of Table 88. Some, particularly secondary school youths, enter military training. Others leave and cannot be located; column 3. Consequently, the placement or employment of persons trained is less than 100 percent of the number of persons completing training.

Most programs in vocational education operate for a stated period of time -- a certain number of hours, weeks, or months. During this period, most students develop competencies commensurate with program objectives. These students are in a strong position to enter the labor market. In the following tables, these students are identified as "completions".

A smaller number of students leave vocational education programs prior to the formal completion date. Many of these students have gained skills which are generally, though not always, fewer than the total package of skills offered by the programs but adequate for employment in wage-earning positions. In this report, these students are identified. either as "Left Prior to Normal Completion Time with Marketable Skills" or "Early Leavers with Marketable Skills".

The total number of students completing vocational education training on all levels in thirty-seven States, the District of Columbia, and Puerto Rico was 1,139,074; see Table 88. Over-all, the number of students employed as a percent of total completions and early leavers with marketable skills was 49.97 percent. Immediately above and below this mean were 51.28 percent (Idaho) and 47.98 percent (Georgia). The highest percent was 67.88 percent (Ohio). The lowest was 7.05 percent in Puerto Rico. However, the lowest State percent of students employed as a percent of total completions and early leavers with marketable skills was 34.67 percent (Oregon).

The number of students employed as a percent of the number available for work was 95.50 percent. Immediately above and below this mean were 95.71 percent (Oklahoma) and 94.91 percent (Iowa). The highest percent was 98.63 percent in the District of Columbia. However, the highest State percent was 97.21 percent (Alaska). The lowest percent was 54.35 percent in Puerto Rico, but the lowest State percent was 77.53 percent (Maine).

Table 88 - Placement of Program Completions in Secondary, Post-Secondary, and Adult Vocational Education Programs in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72.

States	(1) Completions	(2) Left Prior to Normal Completion Time With Marketable Skills	(3) Status Unknown	(4) Number Known to be not Available for Placement	(5) Number Known to be Continuing Education at a Higher Level	(6) Number Known to Have Been Available for Placement	(7) Number Known to Have Been Employed Full Time in Field Trained or Related Field	(8) Number Known to be Unemployed	(9) Number of Students Employed in Field Other Than That for Which Trained or a Related Field	(10) Number of Students Employed as a Per-cent of Total Completions & Early Leavers With Marketable Skills	(11) Number of Students Employed as a Per-cent of the Number Available for Work
TOTAL	1,139,074	112,141	210,577	327,202	233,945	654,709	481,994	61,649	143,279	49.97	95.50
Alabama	21,606	3,417	2,028	6,816	4,406	16,180	13,059	1,616	1,505	58.20	90.01
Alaska	7,149	937	1,797	1,552	1,264	4,737	4,605	132	0	56.95	97.21
Arizona	32,127	808	660	12,531	7,793	19,744	14,000	1,433	4,311	55.60	92.74
California	223,280	35,292	67,222	71,071	51,109	120,279	79,698	11,177	29,404	42.19	90.71
Connecticut	17,377	940	1,064	5,842	4,856	11,411	8,510	817	2,084	57.84	92.84
Delaware	4,885	33	241	227	604	435	2,989	356	--	60.78	--
Dist. of C.	1,450	78	137	222	137	1,091	995	15	81	70.42	98.63
Florida	70,361	11,265	23,871	16,628	11,802	41,127	35,492	4,201	1,434	45.24	89.79
Georgia	32,216	4,084	5,693	11,193	8,552	19,414	17,416	1,998	0	47.98	89.71
Idaho	4,320	228	313	1,700	1,264	2,535	2,170	203	162	51.28	91.99
Illinois	87,995	7,085	12,058	27,969	23,690	53,053	39,487	3,630	9,936	51.98	93.16
Iowa	13,094	381	1,333	4,091	2,879	8,051	5,318	410	2,323	56.71	94.91
Louisiana	30,895	8,346	3,867	11,588	8,716	15,440	13,918	1,522	0	35.47	90.14
Maine	6,084	141	346	1,526	1,077	4,353	2,207	978	1,168	54.22	77.53
Michigan	63,805	2,714	15,620	16,475	11,229	34,214	20,424	3,496	10,294	46.17	89.78
Mississippi	10,905	448	1,006	3,312	2,363	7,035	4,680	729	1,626	55.54	89.64
Montana	7,161	154	1,767	2,022	1,557	3,526	2,993	533	0	40.92	84.88
Nebraska	9,361	934	744	3,321	2,531	6,230	5,092	650	488	54.20	89.57
Nevada	6,075	632	1,593	1,975	1,147	3,139	1,308	337	1,494	41.78	89.26
New Hampshire	2,453	179	247	702	376	1,683	1,083	96	504	60.30	94.30
New Jersey	45,121	2,916	6,556	8,540	5,876	32,941	23,957	1,863	7,121	64.70	94.34
New Mexico	12,039	1,009	998	2,594	1,707	9,335	8,116	1,138	101	62.98	87.84
N. Carolina	64,962	8,527	13,468	17,193	10,496	42,873	30,752	1,619	10,502	56.14	96.22
N. Dakota	4,802	504	350	1,989	1,576	2,967	2,670	297	0	50.32	89.99
Ohio	40,629	NA	2,267	4,736	4,323	NA	21,234	1,724	6,345	67.88	NA
Oklahoma	30,963	422	3,046	9,012	6,704	19,327	15,553	830	2,944	58.94	95.71
Oregon	15,723	3,822	4,133	6,914	4,287	8,498	4,076	1,722	2,700	34.67	79.74
Pennsylvania	71,624	NA	1,165	18,740	11,805	51,719	19,077	6,132	26,510	63.65	88.14
Rhode Island	1,830	88	217	370	243	1,331	982	70	279	65.75	94.74
S. Carolina	11,298	676	2,657	4,761	3,270	8,159	5,766	707	1,686	46.65	91.33
S. Dakota	4,135	302	430	1,497	1,011	2,510	2,054	182	274	52.47	92.75
Tennessee	29,695	8,138	4,126	9,272	3,851	24,435	19,140	2,457	2,838	58.09	89.94
Utah	19,083	594	1,157	6,633	5,753	11,887	8,631	467	2,789	58.04	96.07
Vermont	3,520	91	374	1,175	514	2,062	1,447	207	408	51.37	89.96
Virginia	34,721	3,039	3,766	11,185	7,815	22,809	16,404	2,492	3,913	53.81	89.07
Washington	31,203	3,633	5,959	12,408	10,154	16,469	11,503	2,098	2,868	41.25	87.26
Wisconsin	29,022	147	4,327	6,518	4,958	18,324	12,660	1,428	4,236	57.92	92.21
Wyoming	3,560	137	341	1,692	1,309	1,664	1,467	197	0	39.68	88.16
Puerto Rico	28,545	—	13,633	1,210	941	3,702	1,061	1,690	951	7.05	54.35

Source: U.S. Office of Education Form 3139, U.S. Department of Health Education, & Welfare, Washington D.C., FY 1972.

Placement of program completions in secondary vocational education. The total number of secondary vocational education completions was 739,053; see Table 89. The number of students employed as a percent of total completions and early leavers with marketable skills was 46.25 percent. Immediately above and below this mean were 46.44 percent (New Mexico) and 45.88 percent (Michigan). The highest percent was 67.06 percent (New Jersey). The lowest percent of students employed as a percent of total completions and early leavers with marketable skills was 12.08 percent (Puerto Rico); 26.69 percent (Wyoming) was the lowest *State*.

The number of students employed as a percent of the number available for work was 96.14 percent. Immediately above and below this mean were 98.84 percent (District of Columbia) and 95.56 percent (North Carolina). The lowest State percent was 70.15 percent (Oregon).

Thirty-eight States, the District of Columbia, and Puerto Rico reported data for both of the above categories.

Placement of program completions in post-secondary vocational education. The total number of completions in post-secondary vocational education was 253,139; see Table 90. As a percent of total completions and early leavers with marketable skills, the number of students employed was 55.96 percent. Immediately above and below this mean were 58.57 percent (Georgia) and 55.63 percent (Florida). The highest percent was 85.00 percent (Vermont). The lowest percent was 5.53 percent (Puerto Rico), but the lowest percent in a *State* was 49.27 percent (Montana).

The number of students employed as a percent of the number available for work was 94.90 percent. Immediately above and below this mean were 95.26 percent (Nebraska) and 94.15 percent (North Dakota). The highest percent was 98.94 percent (Arizona). The lowest percent was 55.15 percent (Puerto Rico), but the lowest *State* percent was 77.02 percent (Tennessee).

In both of the above categories thirty-nine States, the District of Columbia and Puerto Rico reported data.

Table 89 - Placement of Program Completions in Secondary Vocational Education Programs in Thirty-eight States, the District of Columbia and Puerto Rico, 1971-72

States	(1) Completions	(2) Left Prior to Normal Completion Time With Marketable Skills	(3) Status Unknown	(4) Number Known to be not Available for Placement	(5) Number Known to be Continuing Education at a Higher Level	(6) Number Known to Have Been Available for Placement	(7) Number Known to Have Been Employed Full Time in Field Trained or Related Field	(8) Number Known to be Unemployed	(9) Number of Students Employed in Field Other Than That for Which Trained or a Related Field	(10) Number of Students Employed as a Percent of Total Completions & Early Leavers With Marketable Skills	(11) Number of Students Employed as a Percent of the Number Available for Work
TOTAL	739,053	28,158	110,943	253,156	187,014	369,138	251,715	42,698	103,193	46.25	96.14
Alabama	14,548	908	912	5,795	3,937	8,749	6,786	1,042	921	49.86	88.09
Alaska	3,101	358	1,084	873	620	1,502	1,398	104	0	40.42	93.08
Arizona	12,590	241	206	5,440	3,144	7,185	4,985	994	1,206	48.25	86.17
California	139,322	3,827	38,843	46,566	34,711	57,740	32,105	7,022	18,613	35.43	87.84
Connecticut	15,090	751	852	5,401	4,480	9,588	6,916	745	1,927	55.82	92.23
Delaware	4,267	33	225	219	593	388	2,477	332	—	57.60	—
Dist. of C.	612	27	75	105	65	432	392	5	35	66.82	98.84
Florida	25,646	2,040	7,681	6,830	4,750	13,175	11,002	1,300	873	42.89	90.13
Georgia	26,154	1,556	3,614	9,885	7,822	14,211	12,385	1,826	0	44.70	87.15
Idaho	2,973	52	213	1,462	1,118	1,350	1,083	153	114	39.57	88.67
Illinois	67,756	1,883	9,106	26,386	20,980	34,147	22,109	3,206	8,832	44.43	90.61
Iowa	7,394	117	304	3,196	2,559	4,021	2,285	221	1,515	50.59	94.50
Louisiana	24,131	330	3,368	11,031	8,407	9,732	8,603	1,129	0	35.17	88.40
Maine	5,238	101	290	1,463	1,025	3,586	1,539	956	1,091	49.26	73.34
Michigan	49,856	1,073	10,116	14,545	9,897	26,268	14,804	2,898	8,566	45.88	88.96
Mississippi	6,281	70	613	2,558	1,898	3,180	1,985	225	970	46.53	92.92
Montana	3,408	31	943	1,266	1,082	1,230	990	240	0	28.79	80.49
Nebraska	6,940	197	487	3,058	2,396	3,592	2,803	454	335	43.97	87.36
Nevada	4,030	72	957	1,495	1,043	1,650	610	279	761	33.42	83.09
New Hampshire	1,776	91	134	614	334	1,119	780	53	286	57.10	95.26
New Jersey	26,555	1,658	2,458	5,881	4,282	19,874	14,307	955	4,612	67.06	95.19
New Mexico	5,069	452	541	1,781	1,186	3,199	2,564	635	0	46.44	80.15
N. Carolina	33,076	1,272	2,039	12,177	8,854	20,132	12,265	893	6,974	56.01	95.56
N. Dakota	3,002	81	134	1,636	1,398	1,293	1,094	199	0	35.48	84.61
Ohio	36,647	NA	1,936	4,562	4,102	NA	18,398	1,574	6,075	66.78	NA
Oklahoma	13,501	349	662	6,294	4,738	6,894	5,205	389	1,300	46.97	94.36
Oregon	12,282	853	2,562	5,525	3,889	5,048	1,385	1,507	2,156	26.96	70.15
Pennsylvania	55,011	NA	567	15,482	10,244	38,962	13,553	5,348	20,061	61.10	86.27
Rhode Island	1,190	46	123	331	219	782	512	38	232	60.19	95.14
S. Carolina	13,523	676	1,288	4,752	3,243	8,159	5,416	707	2,036	52.48	91.33
S. Dakota	3,011	109	273	1,317	945	1,530	1,152	149	229	44.26	90.26
Tennessee	15,635	5,601	2,590	7,047	3,167	11,599	8,975	830	1,794	50.71	92.84
Utah	10,653	125	744	5,668	4,965	4,366	2,275	312	1,779	37.61	92.85
Vermont	2,690	53	307	1,048	502	1,388	905	136	347	45.64	90.20
Virginia	24,593	1,927	1,851	9,829	7,189	14,840	10,244	1,717	2,879	49.48	88.43
Washington	21,775	810	3,804	11,036	9,123	7,745	4,036	1,251	2,458	28.75	83.85
W. Virginia	7,315	326	557	2,300	1,455	4,784	3,197	857	730	51.39	82.09
Wisconsin	20,079	—	1,483	5,835	4,649	12,761	8,971	893	2,897	59.11	93.00
Wyoming	2,258	62	216	1,433	1,169	671	596	75	0	25.69	88.82
Puerto Rico	10,075	—	6,785	1,024	834	2,266	628	1,049	589	12.08	53.71

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972.

Table 90 - Placement of Program Completions in Post-Secondary Vocational Education Programs in Thirty-nine States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Completions	(2) Left Prior to Normal Completion Time With Marketable Skills	(3) Status Unknown	(4) Number Known to be not Available for Placement	(5) Number Known to be Continuing Education at a Higher Level	(6) Number Known to Have Been Available for Placement	(7) Number Known to Have Been Employed Full Time in Field Trained or Related Field	(8) Number Known to be Unemployed	(9) Number of Students Employed in Field Other Than That for Which Trained or a Related Field	(10) Number of Students Employed as a Percent of Total Completions & Early Leavers With Marketable Skills	(11) Number of Students Employed as a Percent of the Number Available for Work
TOTAL	253,139	69,739	68,176	56,201	36,719	190,393	155,039	12,389	25,647	55.96	94.90
Alabama	4,599	2,424	607	771	355	5,645	4,838	243	564	76.92	95.70
Alaska	1,818	331	259	344	319	1,546	1,527	19	0	71.06	98.77
Arizona	15,773	361	65	6,498	4,364	9,571	6,371	101	3,099	58.70	98.94
California	83,958	31,465	28,379	24,505	16,398	62,539	47,593	4,155	10,791	50.58	93.36
Connecticut	2,063	156	205	410	364	1,604	1,429	61	114	69.54	96.20
Delaware	345	0	11	8	9	34	267	16	--	77.39	--
Dist. of C.	286	18	18	76	51	192	188	5	--	61.84	97.92
Florida	13,835	3,060	3,815	2,910	2,226	10,170	9,277	772	121	55.63	92.41
Georgia	6,062	2,528	2,079	1,308	730	5,203	5,031	172	0	58.57	96.69
Idaho	1,235	133	94	210	135	1,064	984	35	45	75.22	96.71
Illinois	9,315	4,934	1,573	1,871	1,235	10,805	9,843	378	584	73.18	96.50
Iowa	5,700	264	1,029	905	320	4,030	3,033	189	808	64.40	95.31
Louisiana	3,470	4,722	149	745	164	3,076	2,068	200	0	35.01	93.24
Maine	808	40	51	63	52	734	643	22	69	83.96	97.00
Maryland	1,760	NA	826	NA	262	730	641	NA	NA	36.42	87.81
Michigan	9,139	1,536	3,311	1,817	1,299	5,547	4,169	232	1,146	49.78	95.81
Mississippi	2,381	346	281	352	260	2,094	1,841	61	192	74.55	97.09
Montana	3,213	69	738	694	459	1,850	1,617	233	0	49.27	87.41
Nebraska	1,801	678	174	238	127	2,067	1,916	98	53	79.43	95.26
Nevada	1,080	560	304	427	93	909	524	29	356	53.66	96.81
New Hampshire	677	88	113	88	42	564	303	43	218	68.10	92.38
New Jersey	8,221	410	732	1,269	894	6,650	5,200	248	1,202	74.17	96.27
New Mexico	5,524	471	363	572	374	4,959	4,427	431	101	75.53	91.31
N. Carolina	7,663	5,710	1,916	1,586	939	9,871	9,054	235	582	72.06	97.62
N. Dakota	1,800	423	216	333	178	1,674	1,576	98	0	70.90	94.15
Ohio	2,627	NA	148	105	203	NA	1,986	57	128	80.47	NA
Oklahoma	1,752	73	134	585	512	1,106	976	35	95	58.68	96.84
Oregon	3,441[1]	2,969	1,571	1,389	398	3,450	2,691	215	544	50.47	93.77
Pennsylvania	5,708	NA	105	1,282	906	4,321	2,274	351	1,696	69.55	91.88
Rhode Island	432	27	66	23	21	370	343	10	17	78.43	97.30
S. Carolina	1,775	NA	1,369	9	27	NA	350	NA	NA	NA	NA
S. Dakota	1,040	166	148	127	59	931	877	30	24	74.71	96.78
Tennessee	5,741	1,361	464	1,546	479	5,092	3,470	1,170	452	55.22	77.62
Utah	2,387	384	230	507	382	2,034	1,437	60	537	71.24	97.05
Vermont	176	24	17	11	2	172	170	2	0	85.00	98.84
Virginia	3,766	934	913	619	439	3,168	2,792	343	33	60.11	89.17
Washington	9,428	2,823	2,155	1,372	1,031	8,724	7,467	847	410	64.30	90.29
W. Virginia	805	61	68	90	78	712	613	60	39	74.94	91.57
Wisconsin	8,943	147	2,844	683	399	5,563	3,689	535	1,339	55.31	90.38
Wyoming	669	43	84	201	117	427	373	54	0	52.39	87.35
Puerto Rico	11,919	—	10,552	172	107	1,195	371	536	288	5.53	55.15

[1] These figures also include adult student completions.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington D.C., FY 1972.

Placement of program completions in adult vocational education. The number of adult vocational education completions was 156,137; Table 91. In the following categories the number of States reporting was thirty-five. Also reporting were the District of Columbia and Puerto Rico.

The number of students employed as a percent of total completions and early leavers with marketable skills was 56.53 percent. Immediately above and below this mean were 57.10 percent (Nevada) and 56.46 percent (Louisiana). The highest percent was 89.74 percent (Delaware). The lowest was 2.08 percent (Puerto Rico), but the lowest State percent was 41.36 percent (Michigan).

The number of students employed as a percent of the number available for work was 93.96 percent. Immediately above and below this mean were 93.98 percent (New Mexico) and 93.88 percent (South Dakota). The highest percent was 100.00 percent (Maine). The lowest was 56.43 percent (Puerto Rico), but the lowest State percent was 74.84 percent (Mississippi). Five States (Iowa, Maryland, New Hampshire, South Carolina, and Washington) do not offer adult preparatory programs and therefore are shown as 0.00.

Summary of Placement of Program Completions. In summary, we see that over fifty percent of all persons gaining significant skills through training were employed; when considering only those persons who were available for work -- that is, disallowing persons in higher education, persons in military service, and the like -- over ninety percent were employed.

Among the persons trained is a group composed of persons known to be unemployed; see column 8. On no table does the number unemployed, when calculated as a percent of completions and early leavers with marketable skills, exceed 5.6 percent. While an in-depth comparison is not possible at this time, the secondary school trainees who were unemployed were only five percent of those completing or leaving early with marketable skills; among the high school general population, the percent is generally recognized as double that.

Table 91 - Placement of Program Completions in Adult Vocational Education Programs in Thirty-five States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Completion	(2) Left Prior to Normal Completion Time With Marketable Skills	(3) Status Unknown	(4) Number Known to be not Available for Placement	(5) Number Known to be Continuing Education at a Higher Level	(6) Number Known to Have Been Available for Placement	(7) Number Known to Have Been Employed Full Time in Field Trained or Related Field	(8) Number Known to be Unemployed	(9) Number of Students Employed in Field Other Than That for Which Trained or a Related Field	(10) Number of Students Employed as a Percent of Total Completions & Early Leavers With Marketable Skills	(11) Number of Students Employed as a Percent of the Number Available for Work
TOTAL	156,137	12,422	42,909	22,235	12,017	101,403	79,691	7,479	15,588	56.53	93.96
Alabama	2,459	85	509	250	114	1,785	1,435	331	19	57.15	81.46
Alaska	2,230	248	454	335	325	1,689	1,680	9	0	67.80	99.47
Arizona	3,764	206	389	593	285	2,988	2,644	338	6	66.75	88.69
Connecticut	224	33	7	31	12	219	165	11	43	80.93	94.98
Delaware	273	0	5	0	2	13	245	8	--	89.74	--
Dist. of C.	552	33	44	41	21	467	415	5	47	78.97	98.93
Florida	30,880	6,165	12,375	6,888	4,826	17,782	15,213	2,129	440	42.25	88.03
Idaho	112	43	6	28	11	121	103	15	3	68.39	87.60
Illinois	10,924	268	1,379	1,712	1,475	8,101	7,535	46	520	71.97	99.43
Iowa	0	0	0	0	0	0	0	0	0	0.00	0.00
Louisiana	3,294	1,040	350	312	145	2,632	2,447	185	0	56.46	92.97
Maine	38	NA	5	NA	NA	33	25	NA	8	86.84	100.00
Maryland	0	0	0	0	0	0	0	0	0	0.00	0.00
Michigan	4,180	105	2,193	113	33	2,399	1,451	366	582	41.36	84.74
Mississippi	2,243	32	112	402	205	1,761	854	443	464	57.93	74.84
Montana	540	54	86	62	16	446	386	60	0	64.98	86.55
Nebraska	620	59	83	25	8	571	373	98	130	74.08	88.09
Nevada	965	0	332	53	11	580	174	29	377	57.10	95.00
New Hampshire	0	0	0	0	0	0	0	0	0	0.00	0.00
New Jersey	10,345	848	3,366	1,410	700	6,417	4,450	660	1,307	51.43	89.71
New Mexico	1,446	86	94	241	147	1,197	1,125	72	0	73.43	93.98
N. Carolina	24,223	1,590	9,513	3,430	703	12,870	9,433	491	2,946	47.96	96.18
Ohio	1,355	NA	183	69	18	NA	850	93	142	73.21	NA
Oklahoma	15,710	NA	2,250	2,133	1,454	11,327	9,372	406	1,549	69.52	96.42
Oregon[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pennsylvania	10,905	NA	493	1,976	655	8,436	3,250	433	4,753	73.39	94.87
Rhode Island	208	15	28	16	3	179	127	22	30	70.40	87.71
S. Carolina	0	0	0	0	0	0	0	0	0	0.00	0.00
S. Dakota	84	27	9	53	7	49	25	3	21	41.44	93.88
Tennessee	8,319	1,176	1,072	679	205	7,744	6,695	457	592	76.75	94.10
Utah	6,043	85	183	458	406	5,487	4,919	95	473	87.99	98.27
Vermont	654	14	50	116	10	502	372	69	61	64.82	86.25
Virginia	6,362	178	1,002	737	187	4,801	3,368	432	1,001	66.80	91.00
Washington	0	0	0	0	0	0	0	0	0	0.00	0.00
Wisconsin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wyoming	633	32	41	58	23	566	498	68	0	74.89	87.99
Puerto Rico	6,551	—	6,296	14	10	241	62	105	74	2.08	56.43

[1] The adult figures for Oregon are included in the post-secondary figures shown on Table 90.

Source: U.S. Office of Education, Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972.

Placement of Persons Who Have Completed Programs in Each of the Occupational Areas

This year Project Baseline has developed a set of tables showing the placement of students by the occupational areas in which they were trained. Figures are shown for both those who completed a program and those who left early with marketable skills.

This was done so that the placements and completions for each of the occupational areas could be related to the projected labor demand in each respective field, thereby showing still another effect of vocational education.

Placement for agricultural education. The total number of students completing training in agriculture was 85,233; see Table 92. The number of students who left training prior to normal completion with marketable skills was 7,534. Data were available for thirty-seven States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 50.10 percent. The highest percent of employed students was 96.85 percent (Ohio). Immediately above and below the mean of 50.10 percent were Georgia (50.87 percent) and South Dakota (49.34 percent). The lowest percent was 3.33 percent, in Puerto Rico, but the lowest State percent was 28.57 percent (Alaska).

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 99.25 percent in agriculture. The highest percent reported was 100.00 percent (District of Columbia). The State with the highest percent was New Hampshire (99.31 percent). The lowest percent was 58.93 percent (Puerto Rico), but the low for a State was 68.90 percent (Oregon).

Table 92 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Agriculture in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Total Completions in Agriculture	(2) Left Prior to Normal Completions With Marketable Skills	(3) Status Unknown	(4) Number Known to be Continuing Education at a Higher Level	(5) Number Known to Have Been Available for Placement	(6) Number Known to Have Been Employed in Field for Which Trained or a Related Field	(7) Number Known to be Unemployed	(8)[2] Number of Students Employed in Field Other Than That in Which Trained or a Related Field	(9) Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills[3]	(10) Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	85,233	7,534	9,368	23,882	46,882	35,122	3,174	11,351	50.10	99.25
Alabama	4,862	264	256	1,324	2,962	2,250	215	497	53.59	92.74
Alaska	14	0	1	6	5	4	1	0	28.57	80.00
Arizona	961	48	37	266	552	356	70	126	47.77	87.32
California	9,555	1,463	2,107	3,331	4,529	2,825	393	1,311	37.54	91.32
Connecticut	328	32	6	117	206	143	10	53	54.44	95.15
Delaware	135	2	4	4	3	112	5			
Dist. of C.	11	0	3	0	4	4	0	0	36.36	100.00
Florida	2,897	[illegible]01	767	573	1,468	1,152	63	253	45.35	95.71
Georgia	4,243	147	458	1,211	2,518	2,233	285	0	50.87	88.68
Idaho	963	28	45	360	493	443	9	41	48.84	98.17
Illinois	5,812	278	414	1,578	3,573	2,494	275	804	54.15	92.30
Iowa	3,662	87	175	1,866	1,528	1,001	54	473	29.32	96.47
Louisiana	3,449	10	712	745	1,670	1,622	48	0	46.89	97.13
Maine	325	18	16	57	200	110	34	56	48.40	83.00
Michigan	2,768	89	168	403	1,[illegible]9	1,085	118	726	63.39	93.88
Mississippi	1,878	53	139	615	978	691	29	258	49.15	97.03
Montana	778	12	187	146	400	364	36	0	46.08	91.00
Nebraska	1,552	66	30	490	953	840	63	50	55.01	93.39
Nevada	366	23	159	42	160	58	22	80	35.48	86.25
New Hampshire	204	105	108	42	144	135	1	8	46.28	99.31
New Jersey	379	33	40	87	249	173	8	68	58.50	96.79
New Mexico	1,062	33	12	333	747	632	115	0	57.72	84.61
N. Carolina	6,816	485	786	1,645	4,146	2,607	166	1,373	54.51	96.00
N. Dakota[4]	721	25	5	352	343	336	7	0	45.04	97.96
Ohio	3,794	NA	153	564	NA	1,855	65	791	96.85	NA
Oklahoma	4,573	92	196	2,068	2,082	1,512	89	481	42.72	95.73
Oregon	1,361	135	353	330	688	223	214	251	31.68	68.90
Pennsylvania	2,732	NA	30	448	1,846	584	153	1,109	61.97	91.71
Rhode Island	78	3	8	12	54	27	1	26	65.43	98.15
S. Carolina	2,696	72	175	588	1,707	1,232	55	420	59.68	96.78
S. Dakota	665	12	22	249	351	305	17	29	49.34	95.16
Tennessee	3,744	2,539	478	674	3,162	2,456	194	512	47.24	93.86
Utah	1,142	24	20	544	554	363	26	165	45.28	95.31
Vermont	317	6	34	43	186	156	8	22	55.11	95.70
Virginia	1,968	916	91	686	1,660	1,165	87	408	54.54	94.76
Washington	1,875	222	167	722	975	701	74	200	42.97	92.41
Wisconsin	5,168	4	199	1,035	3,579	2,723	123	733	66.82	96.56
Wyoming	388	7	0	203	162	144	18	0	36.42	88.89
Puerto Rico	991	0	807	123	56	6	23	27	3.33	58.93

[1] Includes secondary, post-secondary, and adult.
[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.
[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.
[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972. From all available States.

Placement for distributive education. The total number of students who completed training in distributive education was 125,131; see Table 93. The number of students who left training prior to normal completion with marketable skills was 10,771. Data were available for thirty-seven States and Puerto Rico and the District of Columbia.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 52.83 percent. The highest percent was 87.84 percent (Utah). The States immediately above and below the mean of 52.83 percent were Nebraska (54.68 percent) and Georgia (52.01 percent). The lowest percent was 2.55 percent (Puerto Rico). However, the State low was 27.97 percent (Oregon).

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 98.91 percent in distributive education. The highest percent was 100.00 percent, reported by Alaska. The lowest percent was 59.63 percent (Puerto Rico), but the State low was 75.21 percent (Oregon).

Placement for health occupations. The total number of students who completed training in health occupations was 75,495; see Table 94. The number of students who left training prior to normal completion with marketable skills was 5,123. Data were available for thirty-seven States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 61.75 percent. The highest percent was 90.24 percent (District of Columbia), but the high State was 84.90 percent (Nebraska). The States immediately above and below the mean of 61.75 percent were Oregon (61.82 percent) and Wyoming (61.54 percent). The lowest percent was 11.89 percent (Puerto Rico), but the State low was 16.74 percent, reported by South Carolina.

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 96.88 percent. The highest percent was 100.00 percent (Nevada). The States immediately above and below the mean of 96.88 percent were Oregon (96.92 percent) and New Jersey (96.87 percent). The lowest percent was 65.18 percent (Puerto Rico), but the low for a State was 78.43 percent (South Carolina).

Table 93 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Distributive Education in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)[2]	(9)	(10)
States	Total Completions in Distributive Education	Left Prior to Normal Completion With Marketable Skills	Status Unknown	Number Known to be Continuing Education at a Higher Level	Number Known to Have Been Available for Placement	Number Known to Have Been Employed in Field for Which Trained or a Related Field	Number Known to Be Unemployed	Number of Students Employed in Field Other Than That in Which Trained or a Related Field	Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills[3]	Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	125,131	10,771	26,277	22,010	75,594	56,429	5,461	15,371	52.83	98.91
Alabama	2,347	59	157	382	1,590	1,357	141	92	60.22	91.13
Alaska	1,373	389	174	217	1,357	1,357	0	0	77.01	100.00
Arizona	4,369	111	103	800	3,209	2,545	156	508	68.15	95.14
California	15,733	4,342	5,041	3,205	10,410	7,607	676	2,127	48.49	93.51
Connecticut	1,368	130	74	341	995	821	47	127	63.28	95.28
Delaware	351	2	18	12	4	282	33	—	—	—
Dist. of C.	34	2	3	3	26	26	1	—	—	—
Florida	12,027	1,822	4,997	1,849	6,341	5,280	489	572	42.26	92.29
Georgia	2,192	171	413	581	1,315	1,229	86	0	52.01	93.46
Idaho	521	21	62	132	290	212	33	45	47.42	88.62
Illinois	5,189	333	742	1,382	3,016	2,225	173	618	51.48	94.26
Iowa	1,500	57	76	228	1,053	625	57	371	63.97	94.59
Louisiana	3,493	10	495	553	2,101	1,930	171	0	55.10	91.86
Maine	397	19	37	53	291	215	52	24	57.45	82.13
Michigan	12,869	388	3,117	2,161	7,022	4,258	601	2,163	48.43	91.44
Mississippi	1,329	29	143	367	659	390	62	207	43.96	90.59
Montana	271	10	72	37	159	131	28	0	46.62	82.39
Nebraska	1,295	95	87	318	868	704	108	56	54.68	87.56
Nevada	248	19	45	47	141	47	32	62	40.82	77.30
New Hampshire	150	4	4	26	96	62	3	31	60.39	96.88
New Jersey	3,701	233	321	687	2,675	1,960	130	585	64.69	95.14
New Mexico	1,146	176	218	289	553	467	86	0	35.33	84.45
N. Carolina	6,493	390	883	1,231	4,028	2,897	143	988	56.44	96.45
N. Dakota[4]	343	18	15	131	187	158	29	0	43.77	84.49
Ohio	6,176	NA	300	753	NA	3,082	197	1,076	67.33	NA
Oklahoma	3,203	57	105	703	2,178	1,683	124	371	63.01	94.31
Oregon	1,447	169	399	338	601	284	149	168	27.97	75.21
Pennsylvania	4,706	NA	94	819	3,294	966	492	1,836	59.54	85.06
Rhode Island	341	7	34	70	224	172	17	35	59.48	92.41
S. Carolina	1,638	25	225	384	895	578	105	212	47.50	88.27
S. Dakota	978	54	104	232	547	431	45	71	48.64	91.77
Tennessee	3,445	706	522	619	2,490	2,013	181	296	55.63	92.73
Utah	5,516	51	90	439	4,914	4,619	24	271	87.84	99.51
Vermont	291	1	23	28	206	165	29	12	60.62	85.92
Virginia	7,873	363	985	1,240	5,350	3,279	284	1,787	61.51	94.69
Washington	3,400	461	851	892	1,920	1,326	255	339	43.12	86.72
Wisconsin	1,988	29	273	329	1,252	881	109	262	56.67	91.29
Wyoming	286	18	28	109	119	94	25	0	30.92	78.99
Puerto Rico	5,104	0	4,947	23	218	71	88	59	2.55	59.63

[1] Includes secondary, post-secondary, and adult.

[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.

[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.

[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972. From all various States.

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Table 94 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Health Occupations in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Total Completions in Health Occupations	(2) Left Prior to Normal Completions With Marketable Skills	(3) Status Unknown	(4) Number Known to be Continuing Education at a Higher Level	(5) Number Known to Have Been Available for Placement	(6) Number Known to Have Been Employed in Field for Which Trained or a Related Field	(7) Number Known to Be Unemployed	(8)[2] Number of Students Employed in Field Other Than That in Which Trained or a Related Field	(9) Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills[3]	(10) Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	75,495	5,123	11,547	12,965	51,384	44,633	3,307	5,150	61.75	96.88
Alabama	1,038	97	35	225	819	763	27	29	69.78	96.70
Alaska	235	0	34	91	102	83	19	0	35.32	81.37
Arizona	3,375	66	69	1,457	1,659	1,378	76	205	46.00	95.42
California	13,971	1,766	2,579	3,679	10,505	8,719	495	1,291	63.61	95.29
Connecticut	1,265	119	118	244	998	832	70	96	67.05	92.99
Delaware	99	1	5	3	6	74	8	—	74.00	—
Dist. of C.	268	19	2	4	262	259	3	0	90.24	98.85
Florida	7,320	568	1,564	1,141	4,933	4,522	351	60	58.09	92.88
Georgia	974	165	248	69	776	755	21	0	66.29	97.29
Idaho	271	3	15	33	222	217	5	0	79.20	97.75
Illinois	4,386	378	476	682	3,382	3,081	127	174	68.32	96.24
Iowa	1,791	18	312	124	1,217	953	48	216	64.62	96.06
Louisiana	1,602	297	88	43	1,412	1,364	48	0	71.83	96.60
Maine	303	15	19	36	259	221	13	25	77.36	94.98
Michigan	3,917	179	666	829	2,358	1,826	171	361	53.39	92.75
Mississippi	961	26	64	93	798	706	56	36	75.18	92.98
Montana	458	3	113	84	242	206	36	0	44.69	85.12
Nebraska	542	54	20	24	530	498	24	8	84.90	95.47
Nevada	400	56	64	82	305	249	0	56	66.89	100.00
New Hampshire	180	1	3	9	165	135	30	0	74.59	81.82
New Jersey	3,503	115	235	165	3,131	2,678	98	355	83.83	96.87
New Mexico	892	42	99	98	713	648	65	0	69.38	90.88
N. Carolina	6,294	387	1,926	747	3,458	2,842	173	443	49.17	95.00
N. Dakota[4]	519	8	58	69	399	359	40	0	68.12	89.97
Ohio	2,223	NA	107	307	NA	1,377	63	190	70.49	NA
Oklahoma	2,917	16	323	555	1,769	1,403	178	188	54.24	89.94
Oregon	1,148	75	117	287	780	590	24	166	61.82	96.92
Pennsylvania	3,178	NA	52	454	2,403	1,322	329	752	65.26	86.31
Rhode Island	378	27	41	19	339	319	11	9	80.99	96.76
S. Carolina	471	7	115	206	102	46	22	34	16.74	78.43
S. Dakota	356	10	19	28	307	283	11	13	80.87	96.42
Tennessee	1,347	96	134	152	930	725	178	27	52.11	80.86
Utah	774	16	20	214	430	336	23	71	51.52	94.65
Vermont	271	25	23	36	207	192	9	6	66.89	95.65
Virginia	2,393	238	189	267	2,024	1,848	176	0	70.24	91.30
Washington	2,310	217	329	264	1,794	1,595	129	70	65.89	92.81
Wisconsin	2,411	10	768	114	1,437	1,084	100	253	55.23	93.04
Wyoming	140	3	14	16	99	88	11	0	61.54	88.89
Puerto Rico	614	0	484	15	112	57	39	16	11.89	65.18

[1] Includes secondary, post-secondary, and adult.

[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.

[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.

[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. From all available States.

Placement for occupational home economics. The total number of students who completed training in occupational home economics was 52,184; see Table 95. The number of students who left training prior to normal completion with marketable skills was 4,098. Data were available for thirty-seven States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 39.95 percent. The highest percent was 74.19 percent (Wyoming). The States immediately above and below the mean of 39.95 percent were Arizona (41.53 percent) and California (38.36 percent). The lowest percent was 2.92 percent (Puerto Rico), but the State low was 14.33 percent (Oregon).

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 88.54 percent. The highest percent was 100.00 percent (Wyoming). The States immediately above and below the mean of 88.54 percent were Montana (88.57 percent) and Idaho (88.52 percent). The lowest percent was 26.44 percent (Puerto Rico), but the State low was 56.41 percent (Nebraska).

Placement for office occupations. The total number of students who completed training in office occupations was 423,811; see Table 96. The number of students who left training prior to normal completion with marketable skills was 39,106. Data were available for thirty-seven States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 45.64 percent. The highest percent was 77.54 percent (District of Columbia), but the State high was 68.62 percent (New Mexico). The States immediately above and below the mean of 45.64 percent were Nebraska (45.98 percent) and Virginia (45.44 percent). The lowest State percent was reported by Montana (27.34 percent).

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 92.00 percent. The highest percent was 98.62 percent (District of Columbia), but the State high was 94.67 percent (North Carolina). Immediately above and below the mean of 92.00 percent were Mississippi (92.08 percent) and Connecticut (91.86 percent). The lowest percent was 51.64 percent (Puerto Rico), but the State low was 64.18 percent (Maine).

Table 95 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Occupational Home Economics in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Total Completions in Gainful Home Economics	(2) Left Prior to Normal Completions With Marketable Skills	(3) Status Unknown	(4) Number Known to be Continuing Education at a Higher Level	(5) Number Known to Have Been Available for Placement	(6) Number Known to Have Been Employed in Field for Which Trained or a Related Field	(7) Number Known to be Unemployed	(8)[2] Number of Students Employed in Field Other Than That in Which Trained or a Related Field	(9) Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills[3]	(10) Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	52,184	4,098	11,931	11,302	25,396	16,094	4,250	6,392	39.95	88.54
Alabama	926	109	131	311	458	311	141	6	30.63	69.21
Alaska	258	0	38	94	110	94	16	0	36.43	85.45
Arizona	2,435	21	21	1,138	1,166	975	146	45	41.53	87.48
California	8,687	1,175	2,598	2,088	4,376	2,508	593	1,275	38.36	86.45
Connecticut	335	29	13	90	237	129	32	76	56.32	86.50
Delaware	491	0	23	14	12	432	4	—	—	—
Dist. of C.	65	2	8	13	42	31	6	5	53.73	83.33
Florida	5,888	466	1,974	1,109	2,614	2,033	447	134	34.10	82.90
Georgia	918	83	158	207	538	444	94	0	44.36	82.53
Idaho	193	128	29	46	209	170	24	15	57.62	88.52
Illinois	4,065	439	571	1,130	2,395	1,375	421	599	43.[illegible]3	82.42
Iowa	276	1	26	35	173	74	13	86	57.76	92.49
Louisiana	711	138	122	138	380	316	64	0	37.22	83.16
Maine	192	7	32	37	102	69	11	22	45.73	89.22
Michigan	3,197	73	888	654	1,285	487	237	561	32.05	81.56
Mississippi	997	30	91	99	752	314	116	322	61.93	84.57
Montana	65	2	19	11	35	31	4	0	46.27	88.57
Nebraska	92	1	10	31	39	21	17	1	23.66	56.41
Nevada	144	16	25	26	102	31	17	54	53.13	83.33
New Hampshire	71	7	22	10	39	28	2	9	47.44	94.87
New Jersey	3,211	421	670	243	2,103	1,257	308	538	49.42	85.35
New Mexico	320	22	28	56	268	230	38	0	67.25	85.82
N. Carolina	3,719	357	[illegible],180	505	1,605	1,124	190	291	34.72	88.16
N. Dakota[4]	190	4	20	49	91	71	20	0	36.60	78.02
Ohio	1,413	NA	101	250	NA	566	97	253	57.96	NA
Oklahoma	798	7	65	179	406	208	26	172	47.20	93.60
Oregon	594	41	224	70	139	86	48	5	14.33	65.47
Pennsylvania	2,482	NA	36	600	1,413	313	309	791	44.48	78.13
Rhode Island	51	3	4	11	38	26	8	4	55.56	78.95
S. Carolina	596	0	112	81	349	135	86	128	44.13	75.36
S. Dakota	154	19	28	59	54	30	4	20	28.90	92.59
Tennessee	683	184	209	177	356	228	71	57	32.87	80.06
Utah	1,509	10	170	516	719	356	75	288	42.40	89.57
Vermont	208	1	27	37	78	36	16	26	29.67	79.49
Virginia	868	84	83	116	693	558	135	0	58.61	80.52
Washington	2,759	213	681	937	1,323	716	195	412	37.95	85.26
Wisconsin	711	0	118	59	466	245	66	155	56.26	85.84
Wyoming	26	5	3	5	23	23	0	0	74.19	100.00
Puerto Rico	1,886	0	1,573	71	208	13	153	42	2.92	26.44

[1] Includes secondary, post-secondary, and adult.
[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.
[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.
[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972. From all available States.

Table 96 – Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Office Occupations in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

States	(1) Total Completions in Office Education	(2) Left Prior to Normal Completion With Marketable Skills	(3) Status Unknown	(4) Number Known to be Continuing Education at a Higher Level	(5) Number Known to Have Been Available for Placement	(6) Number Known to Have Been Employed in Field for Which Trained or a Related Field	(7) Number Known to Be Unemployed	(8)[2] Number of Students Employed in Field Other Than That in Which Trained or a Related Field	(9) Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills [3]	(10) Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	423,811	39,106	84,132	103,804	229,646	163,331	28,412	47,938	45.64	92.00
Alabama	5,239	788	733	1,083	3,789	3,028	746	15	50.49	80.31
Alaska	2,154	110	683	332	1,007	914	93	0	[illegible].37	90.76
Arizona	8,373	279	94	2,357	5,203	[illegible],431	355	1,417	56.03	93.18
California	104,641	13,927	33,756	24,985	50,321	31,551	5,034	13,936	37.52	88.41
Connecticut	9,739	344	682	3,313	5,639	4,056	459	1,124	51.37	91.86
Delaware	2,168	0	129	471	329	926	200	—	—	—
Dist. of C.	269	7	13	19	217	197	3	17	77.54	98.62
Florida	23,640	4,697	7,903	3,815	15,102	13,095	1,788	219	46.98	88.16
Georgia	16,465	2,004	2,862	5,136	8,988	7,325	1,163	0	42.37	87.06
Idaho	1,362	10	96	497	606	491	115	0	35.79	81.07
Illinois	38,717	3,444	5,585	11,775	22,357	16,958	1,624	3,775	49.18	92.74
Iowa	1,843	78	227	212	1,266	874	86	306	61.43	93.21
Louisiana	18,178	2,188	2,063	6,859	7,388	6,400	988	0	31.42	86.63
Maine	3,013	20	88	666	2,200	652	788	760	46.55	64.18
Michigan	23,145	1,005	6,445	4,4[illegible]	11,551	6,914	1,565	3,072	41.35	86.45
Mississippi	1,118	75	99	3[illegible]5	707	567	56	84	54.57	92.08
Montana	2,509	51	811	723	889	700	189	0	27.34	78.74
Nebraska	3,306	309	297	1,072	1,992	1,481	330	181	45.98	83.43
Nevada	1,960	194	418	374	1,008	416	106	486	41.88	89.48
New Hampshire	912	30	53	188	595	437	40	118	58.92	93.28
New Jersey	21,930	1,402	[illegible],957	2,510	15,685	11,691	912	3,122	63.32	94.1[illegible]
New Mexico	4,689	445	306	566	3,910	3,[illegible]23	387	0	68.62	90.10
N. Carolina	8,769	2,460	1,994	1,585	6,599	5,078	352	1,169	55.63	94.67
N. Dakota[4]	1,785	137	120	756	907	758	149	0	39.44	83.57
Ohio	11,752	NA	674	1,382	14	6,373	661	1,391	66.07	NA
Oklahoma	5,260	33	344	1,299	3,055	2,431	255	370	52.92	91.66
Oregon	6,263	1,428	1,653	2,408	3,009	1,302	806	901	28.64	73.21
Pennsylvania	[illegible]0,247	NA	194	6,353	21,694	8,353	3,263	[illegible]0,078	60.93	84.96
Rhode Island	339	11	52	46	236	185	18	33	62.29	92.37
S. Carolina	[illegible],212	94	227	1,[illegible]02	1,713	1,125	234	354	44.74	86.34
S. Dakota	685	19	25	216	388	290	55	43	47.30	85.82
Tennessee	8,745	1,375	1,291	1,261	6,705	5,246	757	702	58.77	88.71
Utah	4,784	193	410	2,322	2,019	991	211	817	36.33	89.55
Vermont	995	26	138	201	521	329	68	124	44.37	86.95
Virginia	14,[illegible]74	523	1,463	4,451	7,900	4,984	1,222	1,694	45.44	84.53
Washington	13,581	1,298	2,777	5,609	5,593	5,470	936	—	—	—
Wisconsin	9,135	44	995	1,737	6,009	4,166	674	1,169	58.12	88.78
Wyoming	2,067	58	165	904	815	729	86	0	34.31	89.45
Puerto Rico	6,648	0	4,310	520	1,733	434	838	461	13.46	51.64

[1] Includes secondary, post-secondary, and adult.
[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.
[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8
[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972. From all available States.

Placement for technical education. The total number of students who completed training in technical education was 45,054; see Table 97. The number of students who left training prior to normal completion with marketable skills was 9,339. Data were available for thirty-seven States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 56.64 percent. The largest percent was 86.34 percent (Maine). Immediately above and below the mean of 56.64 percent were Georgia (57.56 percent) and Oklahoma (56.46 percent). The lowest percent was 0.00 percent, reported by the District of Columbia and Vermont, which do not offer technical education.

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 98.04 percent. The largest percent was 100.00 percent, reported by Alaska, California and Nebraska. The States immediately above and below the mean of 98.04 percent were Rhode Island (98.39 percent) and Mississippi (97.82 percent). The lowest percent was 0.00 percent, reported by the District of Columbia and Vermont.

Placement for trade and industrial education. The total number of students who completed training in trade and industrial education was 319,818; see Table 98. The number of students who left training prior to normal completion with marketable skills was 30,251. Data were available for thirty-six States, the District of Columbia, and Puerto Rico.

The national average or mean (based on data available) for the number of students employed as a percent of completions and early leavers with marketable skills was 49.56 percent. The highest percent was 71.33 percent (Pennsylvania). The States immediately above and below the mean of 49.56 percent were South Dakota (52.64 percent) and Michigan (49.16 percent). The lowest percent was 5.83 percent (Puerto Rico). However, the State low was 32.05 percent (Illinois).

The national average or mean (based on data available) for the number of students employed as a percent of the number known to be available for work was 98.45 percent. The highest percent was 99.77 percent, reported by Alaska. The lowest percent was 58.61 percent (Puerto Rico), but the State low was 84.57 percent (Oregon).

Table 97 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Technical Education in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)[2]	(9)	(10)
States	Total Completions in Technical Education	Left Prior to Normal Completion With Marketable Skills	Status Unknown	Number Known to be Continuing Education at a Higher Level	Number Known to Have Been Available for Placement	Number Known to Have Been Employed in Field for Which Trained or a Related Field	Number Known to Be Unemployed	Number of Students Employed in Field Other Than That in Which Trained or a Related Field	Number of Students Employed as a Percent of Completions and Early Leavers With Marketable Skills[3]	Number of Students Employed as a Percent of the Number Known to be Available for Work[3]
TOTAL	45,054	9,339	8,937	9,399	31,421	23,864	1,667	6,942	56.64	98.04
Alabama	91	95	30	2	126	80	13	33	60.75	89.68
Alaska	1,537	71	444	331	832	832	0	0	51.74	100.00
Arizona	2,384	95	14	547	1,523	872	20	631	60.63	98.69
California	8,399	3,392	2,741	2,184	5,943	4,444	307	1,499	50.40	100.00
Connecticut	749	45	39	189	547	506	3	38	68.51	99.45
Delaware	234	0	6	40	34	146	6	—	--	—
Dist. of C.	0	0	0	0	0	0	0	0	0.00	0.00
Florida	3,994	781	1,154	1,047	2,402	2,211	177	14	46.60	92.63
Georgia	556	264	191	63	483	472	11	0	57.56	97.72
Idaho	128	0	3	7	109	96	1	12	84.38	99.08
Illinois	1,331	622	211	205	1,439	1,345	38	56	71.74	97.36
Iowa	356	7	103	23	198	132	22	44	48.48	88.89
Louisiana	474	465	47	52	367	239	128	0	25.45	65.12
Maine	158	3	4	5	150	138	11	1	86.34	92.67
Michigan	1,231	253	534	176	711	611	7	93	47.44	99.02
Mississippi	287	23	23	47	229	195	5	29	72.26	97.82
Montana	704	15	135	262	429	372	57	0	51.74	86.71
Nebraska	183	0	28	32	147	116	0	31	80.33	100.00
Nevada	827	156	253	133	430	169	33	228	40.39	92.33
New Hampshire	70	0	3	7	54	50	4	0	71.43	92.59
New Jersey	4,663	216	435	809	3,307	2,210	126	971	65.20	96.19
New Mexico	503	38	49	52	425	401	[illegible]	0	74.12	94.35
N. Carolina	1,701	968	528	281	1,746	1,642	27	77	64.41	98.45
N. Dakota[4]	58	21	9	13	48	46	2	0	58.23	95.83
Ohio	698	NA	41	54	NA	520	12	42	80.52	NA
Oklahoma	1,969	43	259	538	1,149	903	13	233	58.46	98.87
Oregon	625	239	135	72	529	317	18	194	59.14	96.60
Pennsylvania	6,112	NA	130	1,423	4,025	1,342	360	2,323	59.96	91.06
Rhode Island	126	2	25	30	62	39	1	22	47.66	98.39
S. Carolina	180	0	121	5	0	53	0	0	—	—
S. Dakota	192	26	31	32	152	142	8	2	66.06	94.74
Tennessee	819	1,037	219	125	1,410	1,334	31	45	74.30	97.80
Utah	566	26	54	223	286	186	12	88	46.28	95.80
Vermont	0	0	0	0	0	0	0	0	0.00	0.00
Virginia	[illegible]	236	191	112	559	514	23	22	60.29	95.89
Washington	1,014	165	217	190	718	577	99	42	52.50	86.21
Wisconsin	1,007	28	277	60	664	458	45	161	59.81	93.22
Wyoming	121	7	9	20	91	88	3	0	68.75	96.70
Puerto Rico	354	0	244	8	97	66	20	11	21.75	79.38

[1] Includes secondary, post-secondary, and adult.

[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.

[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.

[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972. From all available States.

Table 98 - Students Employed in Field for Which Trained or a Related Field and Students Employed in Non-Related Fields as a Percentage of Total Completions and Early Leavers With Marketable Skills and as a Percentage of Students Known to be Available for Work in Trade & Industrial Occupations in Thirty-seven States, the District of Columbia and Puerto Rico, 1971-72[1]

State	(1) Total Completions in Trade & Industrial Occupations	(2) Left Prior to Normal Completion With Marketable Skills	(3) Status Unknown	(4) Number Known to Be Continuing Education at a Higher Level	(5) Number Known to Have Been Available for Placement	(6) Number Known to Have Been Employed in Field for Which Trained or a Related Field	(7) Number Known to Be Unemployed	(8)[2] Number of Students Employed in Field Other Than That in Which Trained or a Related Field	(9) Number of Students Employed as[3] a Percent of Completions and Early Leavers With Marketable Skills	(10) Number of Students Employed as[3] a Percent of the Number Known to be Available for Work
TOTAL	319,818	30,251	61,696	47,624	176,231	130,741	14,497	42,754	49.56	98.45
Alabama	7,103	2,005	686	1,079	6,438	5,270	333	835	67.03	94.83
Alaska	1,578	367	423	193	1,324	1,321	3	0	67.92	99.77
Arizona	9,786	168	246	1,162	6,089	4,178	591	1,320	55.23	90.29
California	62,294	9,227	18,400	13,585	34,195	23,044	2,879	8,272	43.79	91.58
Connecticut	3,598	241	132	562	2,789	2,023	194	572	67.60	93.04
Delaware	1,406	28	56	60	47	1,017	99	—	—	—
Dist. of C.	803	47	108	108	540	499	4	37	63.06	99.26
Florida	14,595	2,730	5,512	2,368	8,267	7,199	863	205	42.74	89.56
Georgia	6,868	1,250	1,363	1,285	4,796	4,458	338	0	54.92	92.95
Idaho	882	38	63	189	606	541	16	49	64.13	97.36
Illinois	48,066	1,601	4,359	6,938	16,891	12,006	972	3,913	32.05	94.25
Iowa	3,666	133	414	391	2,616	1,660	130	826	65.44	95.03
Louisiana	2,988	2,984	340	326	2,122	2,047	75	0	34.28	96.47
Maine	1,683	59	153	210	1,141	794	69	278	61.54	93.95
Michigan	16,678	727	3,802	2,542	9,355	5,240	798	3,317	49.16	91.47
Mississippi	4,368	212	447	817	2,912	1,817	405	690	54.74	86.09
Montana	2,376	61	430	429	1,372	1,189	183	0	48.79	86.06
Nebraska	2,365	409	272	560	1,686	1,419	106	161	56.96	93.71
Nevada	1,793	150	538	231	852	294	103	455	38.55	87.91
New Hampshire	866	32	54	109	590	454	16	120	63.92	97.29
New Jersey	7,734	496	898	841	5,791	4,028	281	1,482	66.95	95.15
New Mexico	3,246	253	286	285	2,739	2,450	289	0	70.02	89.45
N. Dakota[4]	1,186	291	126	195	992	942	50	0	63.78	94.96
Ohio	14,573	NA	891	1,123	NA	7,461	629	2,602	69.05	NA
Oklahoma	14,965	210	2,035	1,996	10,396	8,842	186	1,368	67.28	98.21
Oregon	4,002	1,715	1,195	782	2,650	1,250	409	991	39.20	84.57
Pennsylvania	22,068	NA	629	1,689	16,976	6,158	1,234	9,584	71.33	92.73
Rhode Island	504	12	53	55	342	180	12	150	63.95	96.49
S. Carolina	5,783	354	1,515	850	2,987	2,313	139	535	46.41	95.35
S. Dakota	1,105	162	201	195	709	573	42	94	52.64	94.08
Tennessee	10,943	2,213	1,281	843	9,411	7,164	1,049	1,198	63.56	88.85
Utah	4,850	274	357	1,489	2,956	1,742	96	1,118	55.82	96.75
Vermont	1,423	24	127	168	854	564	77	213	53.70	90.98
Virginia	6,744	679	758	940	4,584	4,026	556	2	54.26	87.87
Washington	5,309	1,028	1,052	1,184	3,725	2,813	375	537	52.86	89.93
Wisconsin	8,241	32	1,404	1,616	4,858	3,050	313	1,495	54.94	93.56
Wyoming	532	39	122	37	355	301	54	0	52.71	84.79
Puerto Rico	12,848	0	11,268	192	1,278	414	529	335	5.83	58.61

[1] Includes secondary, post-secondary, and adult.

[2] Column 8 represents the sum of columns 6 & 7 subtracted from column 5.

[3] Number of Students Employed used in columns 9 & 10 is the sum of columns 6 & 8.

[4] North Dakota does not include adult.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. From all available States.

Summary of completions and placements. Summarizing completions and placements for the occupational areas, we find that the areas which trained and placed the largest number of persons were office occupations and trade and industrial education, which had completions and early leavers totaling 423,811 and 319,818 respectively. The other occupational area with a large number of completions was distributive education with 125,131. The completion figures can be assumed to be larger since only thirty-seven States, the District of Columbia, and Puerto Rico made data available on completions to Project Baseline.

Health occupations showed the highest percentage of placement at 61.75 percent. The data are encouraging for this occupational area which is relatively new and rapidly developing. Perhaps the high placement figure is understandable when we consider four characteristics of the field. One, the instructors are almost always fully certified by both the appropriate health branch of the State Board and vocational education. Second, facilities and equipment are new and approved by both organizations. Third, persons completing training face a State board examination in a recognized occupation. Four, the rapidly growing demand for workers in the health field provides wide placement opportunity.

Comparison of the Projected Labor Demand with the Supply Created By Completions in Vocational Education

The desire to further document the relationship between vocational training and the labor market has never been greater than now. Tables 99 and 100 were developed by the Project Baseline staff pursuant to a suggestion by one of the participants at a meeting with several State Directors of vocational education. Tables 99 and 100 include data available from twenty-two States, the District of Columbia, and Puerto Rico.

The projected labor demands -- the first set of columns at the left on both Tables 99 and 100 -- were taken from the appropriate sections of the State plans for vocational education. The State plans were given to Project Baseline by the States. The middle set of columns was taken from the appropriate sections of USOE forms 3139, copies of which were given Project Baseline by the States. The third set of columns is a simple percentage arrived at by dividing the appropriate columns of demand (first set) into supply (second set). For example, with Table 99 the projected labor demand in agriculture was for 156,543 persons; this was divided into 56,882 which is the labor supply produced by vocational education agriculture completions; the result is that supply was 36.34 percent of demand. The same procedure was followed for Table 100 by dividing demands into placements.

Comparison of projected labor demands with the labor supply produced by vocational education completions in twenty-two States, the District of Columbia, and Puerto Rico. The total projected labor demand in occupations for which training was offered in agricultural education was 156,543; see Table 99. The total of labor supply produced by completions was 56,882, or 36.34 percent of the projected labor demand.

Within the States, the highest percentage by which the projected labor supply produced by agriculture education completions exceeded the projected labor demands with 726.95 percent (Utah). The lowest percentage of projected labor demand supplied by agriculture education completions was 6.98 percent (Ohio).

The total of projected labor demand in occupations for which training was offered in distributive education was 287,310. The total of labor supply produced by completions was 56,280; thus the percentage of demand supplied by completions was 19.59 percent.

Within the States, the highest percentage of projected demand supplied by distributive education completions was Washington which exceeded the demand by 98.00 percent. The lowest percentage of projected labor demand supplied by distributive education completions was 0.81 percent (District of Columbia), but the lowest percentage of demand satisfied in a State was 5.63 percent (Nebraska).

The total of projected labor demand in occupations for which training was offered in health occupations was 122,562. The total of labor supply produced by completions was 30,007. Thus, the percentage of demand supplied by completions was 24.48 percent.

Within the States, the highest percentage by which the projected labor supply produced by health occupations completions exceeded the projected labor demands was 308.57 percent (Wyoming). The lowest percentage of projected labor demand supplied by health occupations completions was 9.56 percent (Georgia).

The total of projected labor demand in occupations for which training was offered in occupational home economics was 99,023. The total of labor supply produced by completions was 22,973; thus, the percentage of demand supplied by completions was 23.20 percent.

Within the States, the highest percentage by which the projected labor supply produced by occupational home economics completions exceeded the projected labor demands was 305.07 percent (Utah). The lowest percentage of projected labor demand supplied by occupational home economics completions was 0.72 percent (District of Columbia), but the lowest percentage of demand supplied by completions in a State was 2.27 percent (South Carolina).

The total of projected labor demand in occupations for which training was offered in office occupations, was 388,137. The total of labor supply produced by completions was 205,013; thus the percentage of demand supplied by completions was 52.82 percent.

Within the States, the highest percentage by which the projected labor supply produced by office occupations completions exceeded the projected labor demands was 136.11 percent (Wyoming). The lowest percentage of projected labor demand supplied by office occupations completions was 1.72 percent (District of Columbia), but the lowest percentage of demand satisfied in a State was 8.42 percent (South Carolina).

Table 99 - Comparison of Projected Labor Demands and Labor Supply Produced by Vocational Education Completions in Twenty-Two States, the District of Columbia and Puerto Rico, 1972

States	Projected Labor Demands by Service Area for 1972[1]						
	Ag.	DE	Health	Occupational Home Ec.	Office	Tech.	T & I
TOTAL	156,543	287,310	122,562	99,023	388,137	46,482	696,181
Alabama	4,413	8,827	1,961	4,903	8,336	981	12,750
Dist. of C.	93[2]	4,465	1,979	9,267	16,083	1,284	17,713
Georgia	6,601	10,655	11,908	2,169	32,606	2,858	40,484
Idaho	3,900	3,650	600	1,720	4,800	2,300	2,570
Illinois	19,461	50,500	44,100	21,400	51,700	4,000	75,000
Iowa	12,600	13,201	3,500	3,598	12,172	380	10,077
Louisiana	4,713	16,290	7,480	3,593	21,343	4,021	29,413
Maine	0	1,300	300	0	1,900	300	2,300
Mississippi	6,524	6,598	2,207	1,620	7,892	1,092	19,443
Montana	870	824	916	742	2,122	216	1,790
Nebraska	16,648	24,683	3,739	1,832	20,324	2,105	38,478
N. Dakota	980	825	1,050	200	1,700	300	1,200
Ohio	54,322	47,862	8,446	394	57,348	2,614	121,802
Oregon	3,240	5,534	2,120	490	6,110	140	7,720
Pennsylvania	1,758	20,615	16,214	9,772	53,242	12,738	121,344
Rhode Island	100	5,600	300	400	3,800	900	5,800
S. Carolina	3,651	16,612	3,600	26,264	39,248	4,900	86,264
S. Dakota	3,751	2,117	932	2,772	3,693	1,279	22,128
Tennessee	6,382	23,798	6,446	1,278	20,535	2,228	44,315
Utah	141	3,300	1,000	375	4,500	180	5,450
Washington	997	1,950	978	1,578	6,723	41	8,129
Wisconsin	-1,087	3,378	751	531	6,060	625	16,516
Wyoming	485	650	35	125	900	200	1,500
Puerto Rico	6,000	14,076	2,000	4,000	5,000	800	3,995

[1] Includes Projected Expansion and Replacement Needs.

[2] Ornamental Horticulture only.

Table 99 - Cont'd

States	Labor Supply Produced by Vocational Education Completions in 1972[3]						
	Ag.	DE	Health	Occupational Home Ec.	Office	Tech.	T & I
TOTAL	56,882	56,280	30,007	22,973	205,013	19,185	187,131
Alabama	5,126	2,406	1,135	1,035	6,027	186	9,108
Dist. of C.	11	36	287	67	276	0	850
Georgia	4,380	2,363	1,139	1,001	18,469	820	7,118
Idaho	991	542	274	321	1,372	128	920
Illinois	6,090	5,522	4,764	4,504	42,161	1,953	49,667
Iowa	3,749	1,557	1,809	277	1,921	363	3,799
Louisiana	3,459	3,503	1,899	849	20,366	939	5,972
Maine	343	416	318	199	3,153	161	1,742
Mississippi	1,931	1,358	987	1,027	1,193	310	4,580
Montana	790	281	461	67	2,560	719	2,437
Nebraska	1,618	1,390	596	93	3,615	183	2,874
N. Dakota	746	361	527	194	1,922	79	1,477
Ohio	3,794	6,176	2,223	1,413	11,752	698	14,573
Oregon	1,496	1,616	1,223	635	7,691	864	5,717
Pennsylvania	2,732	4,706	3,178	2,482	30,247	6,112	22,068
Rhode Island	81	348	405	54	350	128	516
S. Carolina	2,768	1,663	478	596	3,306	180	6,137
S. Dakota	677	1,032	366	173	704	218	1,267
Tennessee	6,283	4,151	1,443	867	10,120	1,856	13,156
Utah	1,166	5,567	790	1,519	4,977	592	5,124
Washington	2,097	3,861	2,527	2,972	14,879	1,179	6,337
Wisconsin	5,168	2,017	2,421	711	9,179	1,035	8,273
Wyoming	395	304	143	31	2,125	128	571
Puerto Rico	991	5,104	614	1,886	6,648	354	12,848

[3] Completions include Early Leavers with Marketable Skills.

Table 99 - Cont'd

States	Percentage of Projected Labor Demand Supplied by Vocational Education Completions in 1972						
	Ag.	DE	Health	Occupational Home Ec.	Office	Tech.	T & I
TOTAL	36.34	19.59	24.48	23.20	52.82	41.27	26.88
Alabama	(SED 16.16)	27.26	57.88	21.11	72.30	18.96	71.44
Dist. of C.	11.83	.81	14.50	.72	1.72	0.00	4.80
Georgia	66.35	22.18	9.56	46.15	56.64	28.69	17.58
Idaho	25.41	14.85	45.67	18.66	28.58	5.57	35.80
Illinois	31.29	10.93	10.80	21.05	81.55	48.83	66.22
Iowa	29.75	11.79	51.69	7.70	15.78	95.53	37.70
Louisiana	73.39	21.50	25.39	23.63	95.42	23.35	20.30
Maine	(SED 343.00)	32.00	(SED 6.00)	(SED 199.00)	(SED 65.95	53.67	75.74
Mississippi	29.60	20.58	44.72	63.40	15.12	28.39	23.56
Montana	90.80	34.10	50.33	9.03	(SED 20.64)	(SED 232.87)	(SED 36.15)
Nebraska	9.72	5.63	15.94	5.08	17.79	8.69	7.47
N. Dakota	76.12	43.76	50.19	97.00	(SED 13.06)	26.33	(SED 23.08
Ohio	6.98	12.90	26.32	(SED 258.63)	20.49	26.70	11.96
Oregon	46.17	29.20	57.69	(SED 29.59)	(SED 25.88)	(SED 517.14)	74.05
Pennsylvania	(SED 55.40)	22.83	19.60	25.40	56.81	47.98	18.19
Rhode Island	81.00	6.21	(SED 35.00)	13.50	9.21	14.22	8.90
S. Carolina	75.81	10.01	13.28	2.27	8.42	3.67	7.11
S. Dakota	18.05	48.75	39.27	6.24	19.06	17.04	5.73
Tennessee	98.45	17.44	22.39	67.84	49.28	83.30	29.69
Utah	(SED 726.95)	(SED 68.70)	79.00	(SED 305.07)	(SED 10.60)	(SED 228.89)	94.02
Washington	(SED 110.33)	(SED 98.00)	(SED 158.38)	(SED 88.34)	(SED 121.31)	(SED 2775.61)	77.96
Wisconsin	(SED 475.44)	59.71	(SED 222.37)	(SED 33.90	(SED 51.47)	(SED 65.60)	50.09
Wyoming	81.44	46.77	(SED 308.57)	24.80	(SED 136.11)	64.00	38.07
Puerto Rico	16.52	36.26	30.70	47.15	(SED 32.96)	44.25	(SED 221.60)

Note: SED - Supply Exceeds Demand

Source: State Plans for Vocational Education Part II, Long Range Plans. (Various States). U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

The total of projected labor demand in occupations for which training was offered in trade and industrial education was 696,181. The total of labor supply produced by completions was 187,131; thus, the percentage of demand supplied by completions was 26.88 percent.

Within the States, the highest percentage by which the projected labor supply produced by trade and industrial education completions exceeded the projected labor demands was 221.60 percent (Puerto Rico). The highest percentage in a State exceeding the demand was 36.15 percent (Montana). The lowest percentage of projected labor demand supplied by completions was 4.80 percent (District of Columbia). The lowest percentage in a State was 5.73 percent (South Dakota).

Comparison of the projected labor demands with the placements of completions in vocational education in twenty-two States, the District of Columbia, and Puerto Rico, Table 100. The total of projected labor demand in occupations for which training was offered in agricultural education was 156,543; placements of completions numbered 29,449, or 18.81 percent of projected demand. Within the States, the highest percentage by which the placements exceeded demand was 317.94 percent (Wisconsin). The lowest percent of projected demand filled by placements was 0.55 percent (Puerto Rico), but the lowest State percentage was 4.87 percent (Ohio).

The total of projected labor demand in occupations for which training was offered in distributive education was 287,310. The total of placements was 29,757 or 10.36 percent of projected demand. Within the States, the highest percentage by which the placements exceeded demand was 48.18 percent (Utah). The lowest percent of projected demand filled by known placements of completions was 0.58 percent (District of Columbia), but the lowest State percent was 3.08 percent (Nebraska).

The total of projected labor demand in occupations for which training was offered in health occupations was 122,562. The total of placements was 19,293, or 15.74 percent of projected demand. Within the States, the highest percentage by which the placements exceeded demand was 151.43 percent (Wyoming). The lowest percent of projected demand filled by placements was 2.22 percent (South Carolina).

The total of projected labor demand in occupations for which training was offered in occupational home economics was 99,023. The total of placements was 9,175 or 9.27 percent of the projected demand. Within the States, the highest percentage by which the placements exceeded demand was 107.87 percent (Ohio). The lowest percentage of projected demand filled by known placements of completions was 0.39 percent (District of Columbia), but the lowest State percent was 1.00 percent (South Carolina).

The total of projected labor demand in occupations for which training was offered in office occupations was 388,137. The total of placements was 95,152 or 24.52 percent of the projected demand. Within the States, the highest percentage by which placements met the demand was 93.46 percent (Washington). The lowest percentage of projected demand filled by known placements was 1.33 percent (District of Columbia), but the lowest State percentage of projected demand filled by known placements was 3.77 percent (South Carolina).

Table 100 - Percent of Projected Demands Filled by Placements of Vocational Education Completions in Twenty-Two States, the District of Columbia and Puerto Rico, 1972

States	Projected Labor Demands by Service Area for 1972						
	Ag.	DE	Health	Occupational Home Ec.	Office	Tech.	T & I
TOTAL	156,543	287,310	122,562	99,023	388,137	46,482	696,181
Alabama	4,413	8,827	1,961	4,903	8,336	981	12,750
Dist. Of C.	93[1]	4,465	1,979	9,267	16,083	1,284	17,713
Georgia	6,601	10,655	11,908	2,169	32,606	2,858	40,484
Idaho	3,900	3,650	600	1,720	4,800	2,300	2,570
Illinois	19,461	50,500	44,100	21,400	51,700	4,000	75,000
Iowa	12,600	13,201	3,500	3,598	12,172	380	10,077
Louisiana	4,713	16,290	7,480	3,593	21,343	4,021	29,413
Maine	0	1,300	300	0	1,900	300	2,300
Mississippi	6,524	6,598	2,207	1,620	7,892	1,092	19,443
Montana	870	824	916	742	2,122	216	1,790
Nebraska	16,648	24,683	3,739	1,832	20,324	2,105	38,478
N. Dakota	980	825	1,050	200	1,700	300	1,200
Ohio	54,322	47,862	8,446	394	57,348	2,614	121,802
Oregon	3,240	5,534	2,120	490	6,110	140	7,720
Pennsylvania	1,758	20,615	16,214	9,772	53,242	12,738	121,344
Rhode Island	100	5,600	300	400	3,800	900	5,800
S. Carolina	3,651	16,612	3,600	26,264	39,248	4,900	86,264
S. Dakota	3,751	2,117	932	2,772	3,693	1,279	22,128
Tennessee	6,382	23,798	6,446	1,278	20,535	2,228	44,315
Utah	141	3,300	1,000	375	4,500	180	5,450
Washington	997	1,950	978	1,578	6,723	41	8,129
Wisconsin	-1,087	3,378	751	531	6,060	625	16,516
Wyoming	485	650	35	125	900	200	1,500
Puerto Rico	6,000	14,076	2,000	4,000	5,000	800	3,995

[1] Ornamental Horticulture only.

Table 100 - Cont'd

States	Placements of Vocational Education Completions in 1972[2]						
	Ag.	DE	Health	Occupational Home Ec.	Office	Tech.	T & I
TOTAL	29,449	29,757	19,293	9,175	95,152	11,489	91,490
Alabama	2,747	1,449	792	317	3,043	113	6,105
Dist. of C.	4	26	259	36	214	0	537
Georgia	2,233	1,229	755	444	7,825	472	4,458
Idaho	484	257	217	185	491	108	590
Illinois	3,298	2,843	3,255	1,974	20,733	1,401	15,919
Iowa	1,474	996	1,169	160	1,180	176	2,486
Louisiana	1,622	1,930	1,364	316	6,400	239	2,047
Maine	166	239	246	91	1,412	139	1,072
Mississippi	949	597	742	636	651	224	2,507
Montana	364	131	206	31	700	372	1,189
Nebraska	890	760	506	22	1,662	147	1,580
N. Dakota	336	158	359	71	758	46	942
Ohio	2,646	4,158	1,567	819	7,764	562	10,063
Oregon	474	452	756	91	2,203	511	2,241
Pennsylvania	1,693	2,802	2,074	1,104	18,431	3,665	15,742
Rhode Island	53	207	328	30	218	61	330
S. Carolina	1,652	790	80	263	1,479	53	2,848
S. Dakota	334	502	296	50	333	144	667
Tennessee	2,968	2,309	752	285	5,948	1,379	8,362
Utah	528	4,890	407	644	1,808	274	2,860
Washington	901	1,665	1,665	1,128	6,283	619	3,350
Wisconsin	3,456	1,143	1,337	400	3,992	619	4,545
Wyoming	144	94	88	23	729	88	301
Puerto Rico	33	130	73	55	895	77	749

[2] Placements include those placed in field for which trained or related field and those placed in non-related field. Those placed in a non-related field are counted in the occupational area in which they were trained.

Table 100 - Cont'd

States	Percent of Projected Demand Filled by Known Placements of Vocational Education Completions in 1972						
	Ag.	DE	Health	Occupational Hmkg.	Office	Tech.	T & I
TOTAL	18.81	10.36	15.74	9.27	24.52	24.72	13.14
Alabama	62.25	16.42	40.39	6.47	36.50	11.52	47.88
Dist. of C.	4.30	.58	13.09	.39	1.33	0.00	3.03
Georgia	33.83	11.53	6.34	20.47	24.00	16.52	11.01
Idaho	12.41	7.04	36.17	10.76	10.23	4.70	22.96
Illinois	16.95	5.63	7.38	9.22	40.10	35.03	21.23
Iowa							
Louisiana	34.42	11.85	18.24	8.79	29.99	5.94	6.96
Maine	(SED 166.00)	18.38	82.00	(SED 91.00)	74.32	46.33	46.61
Mississippi	14.55	9.05	33.62	39.26	8.25	20.51	12.89
Montana	41.84	15.90	22.49	4.18	32.99	(SED 72.22)	66.42
Nebraska	5.35	3.08	13.53	1.20	8.18	6.98	4.11
N. Dakota	34.29	19.15	34.19	35.50	44.59	15.33	78.50
Ohio	4.87	8.69	18.55	(SED 107.87)	13.47	21.50	8.26
Oregon	14.63	8.17	35.66	18.57	36.06	(SED 265.00)	29.03
Pennsylvania	96.30	13.59	12.79	11.30	34.62	28.77	12.97
Rhode Island	53.00	3.70	(SED 9.33)	7.50	5.74	6.78	5.69
S. Carolina	45.25	4.76	2.22	1.00	3.77	1.08	3.30
S. Dakota	8.90	23.71	31.76	1.80	9.02	11.26	3.01
Tennessee	46.51	9.70	11.67	22.30	28.97	61.89	18.87
Utah	(SED 274.47)	(SED 48.18)	40.70	(SED 71.73)	40.18	(SED 52.22)	52.48
Washington	90.37	85.38	(SED 70.25)	71.48	93.46	(SED 1409.76)	41.21
Wisconsin	(SED 317.94)	33.84	(SED 78.03)	75.83	65.87	99.04	27.52
Wyoming	29.69	14.46	(SED 151.43)	18.40	81.00	44.00	20.07
Puerto Rico	.55	.92	3.65	1.38	17.90	9.63	18.75

Note: SED - Supply Exceeds Demand

Source: State Plans for Vocational Education Part II, Long Range Plans. (Various States). U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972.

The total of projected labor demand in occupations for which training was offered in technical education was 46,482. The total of placements was 11,489 or 24.72 percent of the projected demand. Within the States, the highest percentage by which the placements exceeded demand was 1,409.76 percent (Washington). In the District of Columbia, there were no completions, so the demand was not satisfied. The lowest State percentage of projected demand filled by known placements was 1.08 percent (South Carolina).

The total of projected labor demand in occupations for which training was offered in trade and industrial education was 696,181. The total of placements was 91,490 or 13.14 percent of the projected demand. Within the States, the highest percentage by which the placements met the demand was 78.50 percent (North Dakota). The lowest percentage was 3.01 percent (South Dakota).

Comparison of supply and demand. From the comparison of demand and supply, we find that vocational education is playing an important role in meeting the demands of the labor market. Persons with competencies permitting them to be productive in the labor market -- completers or early leavers with marketable skills -- represent no less than 19.59 percent of the labor supply in an occupational area and as high as 52.82 percent as shown on Table 99.

After subtracing the numbers of persons who do not enter the labor market, vocational trainees who become employed fill a significant percentage of the projected labor demand -- from a low of 9.27 percent in occupational home economics to 24.72 percent in technical education, as shown on Table 100.

Examination of Tables 99 and 100 reveals that in about fifty instances the supply of persons coming from an occupational area exceeded the projected labor demand.

A closer examination of the methodology in three areas is suggested -- data collection and analysis, projecting of labor demands, and factors affecting enrollment which will in turn permit tailoring of the number of completions and placements to the availability of jobs.

The introduction to this section on completion and placement stated that placement is a valid measure of the utility of vocational education. Placement is useful as a measure for validating training for persons completing a traditional program. Other types of programs are being developed which are less traditional and even unconventional.

As a public institution, vocational education offers services to societal members, both youths and adults. These societal members have considerable freedom in electing if, when, where, how, and for how long they will utilize the services of vocational education. On occasion, people find program operation too structured and vocational educators try to make their program more flexible so as to make training more acceptable and readily available to the public. When this adjustment is effective, the tone of the programs becomes one of "come when you can, stay as little or as long as you like, leave when you want to or feel you have to".

A by-product of this flexible approach is a difficulty in accounting for the validity of the training when established methodology is applied. Unlike a structured occupational curriculum which is open only to those seeking direct entry into a specific postion in the labor market, a modern vocational curriculum with flexible scheduling permits persons to enroll who have a variety of learning objectives. For a group of persons holding objectives which are more traditional, specific occupational training and immediate placement is desirable. And traditional modes of training followed by placement and accountability reporting will continue to be useful.

Another group is composed of persons with different objectives. Some persons will desire to experience an occupation, to explore it as a possible career. Still others in this second group will want to explore several occupations. And many, particularly adults, will engage only in short courses to build specific skills or enroll in a regular program to strengthen or broaden competencies in some phase of their occupation or cluster. For persons with such objectives, and who move in and out of vocational education in rather short order, traditional placement and follow-up is of very limited use. New methods of accountability need to be developed.

CLUSTER TAXONOMY

The nineteen clusters on the following pages represent a new way of subdividing the world of work; it is a new taxonomy. The purpose of developing the new taxonomy is given in the interim report by the person mainly responsible for development of the taxonomy, Dr. David Fretwell, State Department of Education, Oregon:

> The purpose of this grouping is primarily to bring together related USOE code groups on a competency basis in order that common elements can be identified for high school career education program development. Each USOE code group in the booklet Vocational Education Occupations has been included in the clusters outlined on the following pages. These code groups are occupationally defined in the USOE code book; therefore, in essence the clusters hopefully represent a grouping of occupations having common competencies. An occupational analysis of key occupations in each of the USOE code groups included in clusters can be completed. The common tasks can be identified and used to develop core curriculum guidelines for each cluster.

The taxonomy is intended to be useful to vocational educators in at least two ways. First, the taxonomy provides a focus for reorienting training programs away from the specific job title orientation, and toward the cluster approach. As suggested in the quote from Dr. Fretwell's report, each cluster is based on commonly held competencies. As the competencies are made explicit, instruction can be developed.

The taxonomy is also intended to promote a higher degree of compatibility between U.S. Office of Education instructional code numbers and U.S. Department of Labor Dictionary of Occupational Titles code numbers. The improved compatibility would facilitate linking of training programs, via USOE numbers, with USDL data on the world of work. For example, officials in Oregon are currently linking USOE numbers with State Employment Service data to develop State trends. Officials are also linking Oregon vocational education data with the U.S. Bureau of Labor Statistics to view State data in light of national employment trends.

Vocational education enrollment in agriculture cluster. The highest percent of enrollment in the agriculture cluster was 22.53 percent (Texas); see Table 101. Immediately above and below the mean of 6.48 percent were Ohio (7.07 percent) and Virginia (6.14 percent). Nearest the median was Virginia (6.14 percent). In one case there was no enrollment in the agriculture cluster (District of Columbia), but the lowest percent of enrollment in a State was 0.14 percent in Alaska.

Vocational education enrollment in marketing cluster. The highest percent of enrollment in the marketing cluster was 17.91 percent (Virginia); see Table 102. Immediately above and below the mean of 5.52 percent were Texas (5.64 percent) and Wyoming (5.36 percent). The State nearest the median was Missouri (4.32 percent). The lowest percent of enrollment in the marketing cluster was 1.65 percent (New Hampshire).

Vocational education enrollment in health cluster. The highest percent of enrollment in the health cluster was 8.57 percent (Iowa); see Table 103. Immediately above and below the mean of 3.33 percent were California (3.55 percent) and Colorado (3.00 percent). The lowest percent of enrollment in the health cluster was 1.02 percent (South Carolina).

Vocational education enrollment in food service cluster. The highest percent of enrollment in the food service cluster was 11.21 percent (Indiana); see Table 104. The States immediately above and below the mean of 3.54 percent were West Virginia (3.83 percent) and Arkansas (3.43 percent). Also near the mean was Puerto Rico (3.44 percent). Nearest the median was New Jersey (3.31 percent). The lowest percent of enrollment in the food service cluster was 0.04 percent (Connecticut).

Vocational education enrollment in accounting cluster. The highest percent of enrollment in the accounting cluster was 9.46 percent (Massachusetts); see Table 105. Immediately above and below the mean of 3.32 percent were Delaware (3.46 percent) and West Virginia and New Jersey (3.31 percent). The State nearest the median was Florida (2.33 percent). Also near the median was Puerto Rico (2.25 percent). In one case there was no enrollment in the accounting cluster (District of Columbia), but the lowest percent of enrollment in a State was 0.24 percent in Rhode Island.

Table 101 - Vocational Education Enrollment in Agriculture Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Agriculture Education Enrollment[2]	Total Agriculture Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	651,923	6.48	
Alabama	157,746	20,178	12.79	8
Alaska	20,926	30	.14	51
Arizona	102,806	2,603	2.53	39
Arkansas	110,224	8,610	7.81	20
California	1,221,509	40,828	3.34	36
Colorado	101,521	3,821	3.76	30
Connecticut	127,609	999	.78	48
Delaware	37,323	360	.96	46
Dist. of C.	10,813	0	0.00	52
Florida	511,750	17,825	3.48	34
Georgia	292,211[3]	29,836	10.21	13
Hawaii	40,142	1,246	3.10	37
Idaho	33,146	5,118	15.44	6
Illinois	595,879	20,854	3.50	33
Indiana	154,556	18,873	12.21	10
Iowa	133,442	28,503	21.36	2
Kansas	100,052[4]	7,737	7.73	22
Kentucky	169,031[5]	17,103	10.12	14
Louisiana	176,312	14,209	8.06	18
Maine	29,840	351	1.18	45
Maryland	166,032	2,393	1.44	43
Massachusetts	163,799	1,040	.63	49
Michigan	342,985	7,900	2.30	40
Minnesota	234,334	24,739	10.56	12
Mississippi	109,561	18,230	16.64	5
Missouri	162,625	12,922	7.95	19
Montana	32,267	2,515	7.79	21
Nebraska	68,796	6,529	9.49	16
Nevada	27,276[6]	1,016	3.72	31
New Hampshire	25,310	571	2.26	41
New Jersey	310,186	870	.28	50
New Mexico	52,338	3,733	7.13	24
New York	754,489	7,234	.96	47
N. Carolina	436,016[7]	15,181	3.48	35
N. Dakota	32,637	4,100	12.56	9
Ohio	412,007	29,121	7.07	25
Oklahoma	118,766[8]	16,993	14.31	7
Oregon	123,936	3,461	2.79	38
Pennsylvania	331,782[9]	11,731	3.54	32
Rhode Island	19,992	280	1.40	44
S. Carolina	101,615	17,645	17.36	4
S. Dakota	22,287	4,565	20.48	3
Tennessee	151,226	17,062	11.28	11
Texas	623,214	140,414	22.53	1
Utah	133,903[10]	2,819	2.11	42
Vermont	17,269[11]	705	4.08	29
Virginia	269,799	16,564	6.14	26
Washington	250,802	11,311	4.51	28
W. Virginia	63,312	4,538	7.17	23
Wisconsin	253,495	20,452	8.07	17
Wyoming	17,694	1,788	10.11	15
Puerto Rico	96,832	4,417	4.56	27

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 102 - Vocational Education Enrollment in Marketing Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Marketing Education Enrollment[2]	Total Marketing Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	555,390	5.52	
Alabama	157,746	6,581	4.17	29
Alaska	20,926	686	3.28	38
Arizona	102,806	11,834	11.51	2
Arkansas	110,224	4,042	3.67	32
California	1,221,509	61,523	5.04	19
Colorado	101,521	9,830	9.68	6
Connecticut	127,609	4,077	3.19	41
Delaware	38,323	2,050	5.35	17
Dist. of C.	10,813	420	3.88	31
Florida	511,750	44,522	8.70	7
Georgia	292,211[3]	9,187	3.14	43
Hawaii	40,142	989	2.46	49
Idaho	33,146	1,086	3.28	39
Illinois	595,879	21,779	3.65	33
Indiana	154,556	4,096	2.65	48
Iowa	133,442	4,202	3.15	42
Kansas	100,052[4]	6,444	6.44	8
Kentucky	169,031[5]	10,772	6.37	9
Louisiana	176,312	8,546	4.85	20
Maine	29,840	609	2.04	50
Maryland	166,032	4,680	2.82	45
Massachusetts	163,799	5,765	3.52	34
Michigan	342,985	34,618	10.09	4
Minnesota	234,334	14,385	6.14	13
Mississippi	109,561	4,852	4.43	23
Missouri	162,625	7,030	4.32	26
Montana	32,267	872	2.70	47
Nebraska	68,796	4,367	6.35	10
Nevada	27,276[6]	787	2.89	44
New Hampshire	25,310	418	1.65	52
New Jersey	310,186	9,947	3.21	40
New Mexico	52,338	1,461	2.79	46
New York	754,489	25,921	3.44	37
N. Carolina	436,016[7]	15,110	3.47	35
N. Dakota	32,637	2,062	6.32	11
Ohio	412,007	40,463	9.82	5
Oklahoma	118,766[8]	5,089	4.28	28
Oregon	123,936	5,691	4.59	22
Pennsylvania	331,782[9]	11,491	3.46	36
Rhode Island	19,992	885	4.43	24
S. Carolina	101,615	4,444	4.37	25
S. Dakota	22,287	1,178	5.29	18
Tennessee	151,226	7,012	4.64	21
Texas	623,214	35,132	5.64	15
Utah	133,903[10]	7,726	5.77	14
Vermont	17,269[11]	744	4.31	27
Virginia	269,799	48,320	17.91	1
Washington	250,802	15,490	6.18	12
W. Virginia	63,312	1,110	1.75	51
Wisconsin	253,495	13,580	5.36	16
Wyoming	17,694	694	3.92	30
Puerto Rico	96,832	10,791	11.14	3

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 103 - Vocational Education Enrollment in Health Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Health Education Enrollment[2]	Total Health Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	334,913	3.33	
Alabama	157,746	2,876	1.82	46
Alaska	20,926	402	1.92	41
Arizona	102,806	8,062	7.84	2
Arkansas	110,224	3,008	2.73	23
California	1,221,509	43,313	3.55	18
Colorado	101,521	3,046	3.00	19
Connecticut	127,609	2,728	2.14	36
Delaware	37,323	729	1.95	40
Dist. of C.	10,813	645	5.97	6
Florida	511,750	19,825	3.87	15
Georgia	292,211[3]	6,514	2.23	35
Hawaii	40,142	461	1.15	50
Idaho	33,146	1,548	4.67	8
Illinois	595,879	17,682	2.97	20
Indiana	154,556	4,136	2.68	25
Iowa	133,442	11,430	8.57	1
Kansas	100,052[4]	1,390	1.39	48
Kentucky	169,031[5]	3,325	1.97	39
Louisiana	176,312	4,547	2.58	29
Maine	29,840	529	1.77	47
Maryland	166,032	3,808	2.29	34
Massachusetts	163,799	4,382	2.68	26
Michigan	342,985	14,598	4.26	11
Minnesota	234,334	4,468	1.91	43
Mississippi	109,561	2,573	2.35	33
Missouri	162,625	7,394	4.55	9
Montana	32,267	595	1.84	44
Nebraska	68,796	4,842	7.04	3
Nevada	27,276[6]	1,840	6.75	4
New Hampshire	25,310	1,061	4.19	12
New Jersey	310,186	7,889	2.54	30
New Mexico	52,338	1,538	2.94	21
New York	754,489	32,851	4.35	10
N. Carolina	436,016[7]	28,632	6.57	5
N. Dakota	32,637	848	2.60	28
Ohio	412,007	8,771	2.13	37
Oklahoma	118,766[8]	4,628	3.90	13
Oregon	123,936	4,541	3.66	17
Pennsylvania	331,782[9]	12,865	3.88	14
Rhode Island	19,992	1,002	5.01	7
S. Carolina	101,615	1,033	1.02	52
S. Dakota	22,287	470	2.11	38
Tennessee	151,226	3,697	2.44	32
Texas	623,214	16,894	2.71	24
Utah	133,903[10]	1,842	1.38	49
Vermont	17,269[11]	436	2.52	31
Virginia	269,799	4,974	1.84	45
Washington	250,802	6,957	2.77	22
W. Virginia	63,312	1,662	2.63	27
Wisconsin	253,495	9,577	3.78	16
Wyoming	17,694	192	1.09	51
Puerto Rico	96,832	1,857	1.92	42

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

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Table 104 - Vocational Education Enrollment in Food Service Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Food Service Education Enrollment[2]	Total Food Service Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	356,361	3.54	.
Alabama	157,746	4,919	3.12	27
Alaska	20,926	652	3.12	28
Arizona	102,806	2,672	2.60	36
Arkansas	110,224	3,785	3.43	25
California	1,221,509	36,392	2.98	31
Colorado	101,521	6,641	6.54	10
Connecticut	127,609	49	.04	52
Delaware	37,323	1,750	4.69	16
Dist. of C.	10,813	912	8.43	4
Florida	511,750	14,260	2.79	34
Georgia	292,211[3]	8,044	2.75	35
Hawaii	40,142	3,277	8.16	5
Idaho	33,146	2,470	7.45	7
Illinois	595,879	23,201	3.89	22
Indiana	154,556	17,319	11.21	1
Iowa	133,442	7,449	5.58	13
Kansas	100,052[4]	4,184	4.18	21
Kentucky	169,031[5]	3,390	2.01	39
Louisiana	176,312	2,206	1.25	48
Maine	29,840	250	.84	50
Maryland	166,032	2,296	1.38	45
Massachusetts	163,799	7,254	4.43	19
Michigan	342,985	15,228	4.44	18
Minnesota	234,334	16,121	6.88	9
Mississippi	109,561	2,028	1.85	41
Missouri	162,625	14,005	8.61	3
Montana	32,267	446	1.38	46
Nebraska	68,796	1,494	2.17	37
Nevada	27,276[6]	431	1.58	43
New Hampshire	25,310	1,931	7.63	6
New Jersey	310,186	10,256	3.31	26
New Mexico	52,338	4,725	9.03	2
New York	754,489	4,474	.59	51
N. Carolina	436,016[7]	28,253	6.48	11
N. Dakota	32,637	1,565	4.80	15
Ohio	412,007	12,660	3.07	29
Oklahoma	118,766[8]	2,318	1.95	40
Oregon	123,936	1,327	1.07	49
Pennsylvania	331,782[9]	9,750	2.94	32
Rhode Island	19,992	417	2.09	38
S. Carolina	101,615	1,437	1.41	44
S. Dakota	22,287	1,007	4.52	17
Tennessee	151,226	2,671	1.77	42
Texas	623,214	32,844	5.27	14
Utah	133,903[10]	8,029	6.00	12
Vermont	17,269[11]	1,258	7.28	8
Virginia	269,799	3,615	1.34	47
Washington	250,802	10,694	4.26	20
W. Virginia	63,312	2,428	3.83	23
Wisconsin	253,495	7,737	3.05	30
Wyoming	17,694	509	2.88	33
Puerto Rico	96,832	3,331	3.44	24

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 105 - Vocational Education Enrollment in Accounting Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Accounting Education Enrollment[2]	Total Accounting Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	333,414	3.32	
Alabama	157,746	2,058	1.30	37
Alaska	20,926	884	4.22	13
Arizona	102,806	806	.78	45
Arkansas	110,224	1,822	1.65	34
California	1,221,509	45,498	3.72	15
Colorado	101,521	1,708	1.68	33
Connecticut	127,609	5,479	4.29	12
Delaware	37,323	1,290	3.46	18
Dist. of C.	10,813	0	0.00	52
Florida	511,750	11,913	2.33	26
Georgia	292,211[3]	16,719	5.72	8
Hawaii	40,142	2,719	6.77	3
Idaho	33,146	313	.94	44
Illinois	595,879	46,340	7.78	2
Indiana	154,556	2,114	1.37	36
Iowa	133,442	1,545	1.16	39
Kansas	100,052[4]	2,040	2.04	30
Kentucky	169,031[5]	1,713	1.01	42
Louisiana	176,312	9,940	5.64	9
Maine	29,840	1,710	5.73	7
Maryland	166,032	1,988	1.20	38
Massachusetts	163,799	15,502	9.46	1
Michigan	342,985	9,648	2.81	23
Minnesota	234,334	4,813	2.05	29
Mississippi	109,561	840	.77	46
Missouri	162,625	3,989	2.45	25
Montana	32,267	1,327	4.11	14
Nebraska	68,796	392	.57	49
Nevada	27,276[6]	438	1.61	35
New Hampshire	25,310	1,639	6.48	4
New Jersey	310,186	10,256	3.31	19
New Mexico	52,338	601	1.15	40
New York	754,489	40,474	5.36	10
N. Carolina	436,016[7]	3,050	.70	48
N. Dakota	32,637	729	2.23	28
Ohio	412,007	10,518	2.55	24
Oklahoma	118,766[8]	1,147	.97	43
Oregon	123,936	4,310	3.48	17
Pennsylvania	331,782[9]	17,223	5.19	11
Rhode Island	19,992	48	.24	51
S. Carolina	101,615	1,164	1.15	41
S. Dakota	22,287	65	.29	50
Tennessee	151,226	2,634	1.74	31
Texas	623,214	4,662	.75	47
Utah	133,903[10]	4,164	3.11	21
Vermont	17,269[11]	518	3.00	22
Virginia	269,799	4,652	1.72	32
Washington	250,802	15,329	6.11	6
W. Virginia	63,312	2,098	3.31	20
Wisconsin	253,495	9,285	3.66	16
Wyoming	17,694	1,126	6.36	5
Puerto Rico	96,832	2,174	2.25	27

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Vocational education enrollment in clerical cluster. The highest percent of enrollment in the clerical cluster was 19.03 percent (Maryland); see Table 106. Illinois was at the mean of 6.09 percent. Nearest the median was Wyoming (4.74 percent). In one case there was no enrollment in the clerical cluster (Puerto Rico), but the lowest percent of enrollment in a State was 1.27 percent in South Dakota.

Vocational education enrollment in secretarial cluster. The highest percent of enrollment in the secretarial cluster was 32.37 percent (Connecticut); see Table 107. Immediately above and below the mean of 11.47 percent were Hawaii (11.59 percent) and Indiana (11.44 percent). The State nearest the median was Pennsylvania (10.79 percent). The lowest percent of enrollment in the secretarial cluster was 0.46 percent (Rhode Island).

Vocational education enrollment in industrial mechanics cluster. The highest percent of enrollment in the industrial mechanics cluster was 21.58 percent (Alabama); see Table 108. Florida was at the mean of 7.36. The State nearest the median was Tennessee (7.10 percent). The lowest percent of enrollment in the industrial mechanics cluster was 4.01 percent (Wyoming).

Vocational education enrollment in construction cluster. The highest percent of enrollment in the construction cluster was 14.70 percent (Hawaii); see Table 109. Immediately above and below the mean of 3.95 percent were Connecticut (4.00 percent) and South Dakota (3.87 percent). The State nearest the median was Virginia (3.29 percent). The lowest percent of enrollment in the construction cluster was 1.09 percent (Arizona).

Vocational education enrollment in electricity - electronics cluster. The highest percent of enrollment in the electricity - electronics cluster was 10.94 percent (Mississippi); see Table 110. At the mean of 3.47 percent was Rhode Island. Nearest the median was Florida (3.36 percent). The lowest percent of enrollment in the electricity - electronics cluster was 1.17 percent (Wyoming).

Vocational education enrollment in metals cluster. The largest percent to which vocational education enrollment in the metals cluster was part of total vocational education enrollment was 5.86 percent (West Virginia); see Table 111. The States immediately above and below the mean of 2.88 percent were South Carolina (3.00 percent) and Montana (2.85 percent). The State nearest the median was Montana (2.85 percent). The lowest percent was 1.00 percent (Puerto Rico), but 1.11 percent (Arizona) was the smallest percent reported by a State.

Vocational education enrollment in child care cluster. The largest percentage to which vocational education enrollment in the child care cluster was part of total vocational education enrollment was 5.70 percent (Arizona); see Table 112. The States immediately above and below the mean of 2.12 percent were Minnesota (2.16 percent) and Kansas (1.96 percent). In one case there was no enrollment in the child care cluster (Rhode Island).

Table 106 - Vocational Education Enrollment in Clerical Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Clerical Education Enrollment[2]	Total Clerical Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,240	612,122	6.09	
Alabama	157,746	10,010	6.35	18
Alaska	20,926	512[3]	2.45	45
Arizona	102,806	2,668	2.60	43
Arkansas	110,224	2,015	1.83	49
California	1,221,509	140,363	11.49	3
Colorado	101,521	9,971	9.82	5
Connecticut	127,609	2,016	1.58	50
Delaware	37,323	1,550	4.15	31
Dist. of C.	10,813	255	2.36	46
Florida	511,750	17,655	3.45	39
Georgia	292,211[4]	20,068	6.87	14
Hawaii	40,142	3,294	8.21	10
Idaho	33,146	1,151	3.47	38
Illinois	595,879	36,282	6.09	22
Indiana	154,556	6,913	4.47	27
Iowa	133,442	3,411	2.56	44
Kansas	100,052[5]	4,243	4.24	29
Kentucky	169,031[6]	12,902	7.63	11
Louisiana	176,312	16,196	9.19	7
Maine	29,840	4,492	15.05	2
Maryland	166,032	31,590	19.03	1
Massachusetts	163,799	15,981	9.76	6
Michigan	342,985	18,115	5.28	24
Minnesota	234,334	9,153	3.91	36
Mississippi	109,561	2,153	1.97	47
Missouri	162,625	10,263	6.31	19
Montana	32,267	2,158	6.69	15
Nebraska	68,796	4,738	6.89	13
Nevada	27,276[7]	1,144	4.19	30
New Hampshire	25,310	2,147	8.48	8
New Jersey	310,186	19,424	6.26	21
New Mexico	52,338	3,302	6.31	20
New York	754,489	44,017	5.83	23
N. Carolina	436,016[8]	8,144	1.87	48
N. Dakota	32,637	1,339	4.10	32
Ohio	412,007	16,878	4.10	33
Oklahoma	118,766[9]	4,810	4.05	34
Oregon	[illegible]	10,201	8.23	9
Pennsylvania	331,782[10]	21,444	6.46	17
Rhode island	19,992	671	3.36	40
S. Carolina	101,615	4,341	4.27	28
S. Dakota	22,287	282	1.27	51
Tennessee	151,226	6,114	4.04	35
Texas	623,214	17,101	2.74	42
Utah	133,903[11]	5,197	3.88	37
Vermont	17,269[12]	526	3.05	41
Virginia	269,799	12,887	4.78	25
Washington	250,802	17,855	7.12	12
W. Virginia	63,312	6,754	10.67	4
Wisconsin	253,495	16,588	6.54	16
Wyoming	17,694	838	4.74	26
Puerto Rico	96,832	0	0.00	52

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes duplication of 10 in office areas.
[4] Includes 2,470 duplication within occupational areas.
[5] Includes 1,233 duplication within occupational areas.
[6] Includes 4,162 duplication within occupational areas.
[7] Includes 6,659 duplication within occupational areas.
[8] Includes 5,390 duplication within occupational areas.
[9] Includes 11,371 duplication within occupational areas.
[10] Includes 4,324 duplication within occupational areas.
[11] Includes 33,029 duplication within occupational areas.
[12] Includes 366 duplication within occupational areas.

Source: U.S, Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 107 - Vocational Education Enrollment in Secretarial Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Secretarial Education Enrollment[2]	Total Secretarial Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	1,153,582	11.47	
Alabama	157,746	4,377	2.77	50
Alaska	20,926	4,553	21.76	8
Arizona	102,806	16,696	16.24	13
Arkansas	110,224	7,418	6.73	35
California	1,221,509	188,939	15.47	16
Colorado	101,521	7,854	7.74	32
Connecticut	127,609	41,311	32.37	1
Delaware	37,323	9,666	25.90	3
Dist. of C.	10,813	587	5.43	39
Florida	511,750	69,162	13.51	21
Georgia	292,211[3]	45,825	15.68	15
Hawaii	40,142	4,651	11.59	24
Idaho	33,146	4,013	12.11	23
Illinois	595,879	140,722	23.62	5
Indiana	154,556	17,680	11.44	25
Iowa	133,442	7,835	5.87	37
Kansas	100,052[4]	4,934	4.93	43
Kentucky	169,031[5]	8,604	5.09	41
Louisiana	176,312	28,370	16.09	14
Maine	29,840	6,245	20.93	9
Maryland	166,032	24,914	15.01	17
Massachusetts	163,799	44,980	27.46	2
Michigan	342,985	32,542	9.49	28
Minnesota	234,334	15,223	6.50	36
Mississippi	109,561	4,856	4.43	45
Missouri	162,625	6,739	4.14	47
Montana	32,267	4,385	13.59	20
Nebraska	68,796	3,484	5.06	42
Nevada	27,276[6]	5,394	19.78	10
New Hampshire	25,310	3,260	12.88	22
New Jersey	310,186	72,531	23.38	6
New Mexico	52,338	12,017	22.96	7
New York	754,489	20,801	2.76	51
N. Carolina	436,016[7]	14,737	3.38	48
N. Dakota	32,637	2,763	8.47	31
Ohio	412,007	23,848	5.79	38
Oklahoma	118,766[8]	5,036	4.24	46
Oregon	123,936	10,853	8.76	29
Pennsylvania	331,782[9]	35,806	10.79	26
Rhode Island	19,992	91	.46	52
S. Carolina	101,615	5,478	5.39	40
S. Dakota	22,287	1,072	4.81	44
Tennessee	151,226	10,216	6.76	34
Texas	623,214	17,619	2.83	49
Utah	133,903[10]	18,455	13.78	19
Vermont	17,269[11]	1,260	7.30	33
Virginia	269,799	39,678	14.71	18
Washington	250,802	26,404	10.53	27
W. Virginia	63,312	5,533	8.74	30
Wisconsin	253,495	41,817	16.50	12
Wyoming	17,694	4,238	23.95	4
Puerto Rico	96,832	18,110	18.70	11

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 108 - Vocational Education Enrollment in Industrial Mechanics Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Industrial Mechanics Education Enrollment[2]	Total Industrial Mechanics Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	740,388	7.36	
Alabama	157,746	34,046	21.58	1
Alaska	20,926	1,476	7.05	28
Arizona	102,806	4,888	4.75	47
Arkansas	110,224	15,914	14.44	3
California	1,221,509	99,062	8.11	17
Colorado	101,521	6,598	6.50	34
Connecticut	127,609	5,975	4.68	49
Delaware	37,323	2,498	6.69	31
Dist. of C.	10,813	714	6.60	32
Florida	511,750	37,653	7.36	23
Georgia	292,211[3]	21,553	7.38	22
Hawaii	40,142	2,886	7.19	24
Idaho	33,146	2,175	6.56	33
Illinois	595,879	49,018	8.23	14
Indiana	154,556	12,871	8.33	13
Iowa	133,442	7,568	5.67	39
Kansas	100,052[4]	8,394	8.39	12
Kentucky	169,031[5]	11,635	6.88	30
Louisiana	176,312	14,500	8.22	15
Maine	29,840	1,279	4.29	51
Maryland	166,032	7,869	4.74	48
Massachusetts	163,799	9,114	5.56	40
Michigan	342,985	27,160	7.92	19
Minnesota	234,334	21,278	9.08	10
Mississippi	109,561	8,699	7.94	18
Missouri	162,625	12,817	7.88	20
Montana	32,267	5,063	15.69	2
Nebraska	68,796	5,646	8.21	16
Nevada	27,276[6]	1,907	6.99	29
New Hampshire	25,310	1,238	4.89	46
New Jersey	310,186	17,093	5.51	41
New Mexico	52,338	3,753	7.17	25
New York	754,489	43,498	5.77	37
N. Carolina	436,016[7]	40,108	9.20	9
N. Dakota	32,637	3,023	9.26	8
Ohio	412,007	20,728	5.03	44
Oklahoma	118,766[8]	16,237	13.67	4
Oregon	123,936	5,348	4.32	50
Pennsylvania	331,782[9]	19,684	5.93	36
Rhode Island	19,992	1,943	9.72	7
S. Carolina	101,615	10,768	10.60	5
S. Dakota	22,287	1,734	7.78	21
Tennessee	151,226	10,739	7.10	26
Texas	623,214	32,241	5.17	43
Utah	133.903[10]	9,449	7.06	27
Vermont	17,269[11]	1,734	10.04	6
Virginia	269,799	14,749	5.47	42
Washington	250,802	14,390	5.74	38
W. Virginia	63,312	3,881	6.13	35
Wisconsin	253,495	22,315	8.80	11
Wyoming	17,694	709	4.01	52
Puerto Rico	96,832	4,770	4.93	45

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 109 - Vocational Education Enrollment in Construction Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Construction Education Enrollment[2]	Total Construction Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	396,745	3.95	
Alabama	157,746	4,603	2.92	33
Alaska	20,926	652	3.12	30
Arizona	102,806	1,125	1.09	52
Arkansas	110,224	1,978	1.79	48
California	1,221,509	55,414	4.54	15
Colorado	101,521	3,620	3.57	23
Connecticut	127,609	5,105	4.00	18
Delaware	37,323	1,834	4.91	9
Dist. of C.	10,813	271	2.51	40
Florida	511,750	14,714	2.88	35
Georgia	292,211[3]	6,642	2.27	42
Hawaii	40,142	5,938	14.79	1
Idaho	33,146	963	2.91	34
Illinois	595,879	57,081	9.58	2
Indiana	154,556	5,102	3.30	25
Iowa	133,442	3,158	2.37	41
Kansas	100,052[4]	1,985	1.98	44
Kentucky	169,031[5]	3,296	1.95	45
Louisiana	176,312	2,919	1.66	50
Maine	29,840	818	2.74	38
Maryland	166,032	7,720	4.65	13
Massachusetts	163,799	10,919	6.67	4
Michigan	342,985	10,91[illegible]	3.18	27
Minnesota	234,334	8,842	3.77	20
Mississippi	109,561	5,221	4.77	12
Missouri	162,625	4,457	2.74	39
Montana	32,267	1,571	4.87	10
Nebraska	68,796	2,479	3.60	22
Nevada	27,276[6]	955	3.50	24
New Hampshire	25,310	466	1.84	47
New Jersey	310,186	9,582	3.09	31
New Mexico	52,338	1,455	2.78	37
New York	754,489	22,256	2.95	32
N. Carolina	436,016[7]	26,924	6.18	5
N. Dakota	32,637	520	1.59	51
Ohio	412,007	7,053	1.71	49
Oklahoma	118,766[8]	3,745	3.15	29
Oregon	123,936	6,560	5.29	8
Pennsylvania	331,782[9]	18,161	5.47	7
Rhode Island	19,992	969	4.85	11
S. Carolina	101,615	9,356	9.21	3
S. Dakota	22,287	862	3.87	19
Tennessee	151,226	6,067	4.01	17
Texas	623,214	13,615	2.18	43
Utah	133,903[10]	5,756	4.30	16
Vermont	17,269[11]	793	4.59	14
Virginia	269,799	8,864	3.29	26
Washington	250,802	7,059	2.81	36
W. Virginia	63,312	2,307	3.64	21
Wisconsin	253,495	8,017	3.16	28
Wyoming	17,694	336	1.90	46
Puerto Rico	96,832	5,725	5.91	6

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 110 - Vocational Education Enrollment in Electricity - Electronics Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Electricity-Electronics Education Enrollment[2]	Total Electricity-Electronics Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	349,241	3.47	
Alabama	157,746	7,598	4.82	6
Alaska	20,926	607	2.90	33
Arizona	102,806	1,276	1.24	51
Arkansas	110,224	1,890	1.71	50
California	1,221,509	40,860	3.35	27
Colorado	101,521	2,776	2.73	38
Connecticut	127,609	5,465	4.28	11
Delaware	37,323	979	2.62	41
Dist. of C.	10,813	337	3.12	31
Florida	511,750	17,199	3.36	26
Georgia	292,211[3]	9,948	3.40	23
Hawaii	40,142	1,519	3.78	18
Idaho	33,146	787	2.37	45
Illinois	595,879	20,079	3.37	25
Indiana	154,556	4,187	2.71	39
Iowa	133,442[4]	3,233	2.42	44
Kansas	100,052[5]	2,434	2.43	43
Kentucky	169,031	5,055	2.99	32
Louisiana	176,312	4,564	2.59	42
Maine	29,840	662	2.22	47
Maryland	166,032	5,569	3.35	28
Massachusetts	163,799	7,808	4.77	7
Michigan	342,985	11,650	3.40	24
Minnesota	234,334	9,069	3.87	16
Mississippi	109,561	11,982	10.94	1
Missouri	162,625	6,146	3.78	19
Montana	32,267	1,428	4.43	10
Nebraska	68,796	1,904	2.77	36
Nevada	27,276[6]	726	2.66	40
New Hampshire	25,310	1,207	4.77	8
New Jersey	310,186	8,797	2.84	35
New Mexico	52,338	1,862	3.56	21
New York	754,489	33,870	4.49	9
N. Carolina	436,016[7]	13,694	3.14	30
N. Dakota	32,637	2,180	6.68	2
Ohio	412,007	11,355	2.76	37
Oklahoma	118,766[8]	5,028	4.23	14
Oregon	123,936	3,527	2.85	34
Pennsylvania	331,782[9]	14,138	4.26	12
Rhode Island	19,992	693	3.47	22
S. Carolina	101,615	4,145	4.08	15
S. Dakota	22,287	841	3.77	20
Tennessee	151,226	9,453	6.25	3
Texas	623,214	12,369	1.98	48
Utah	133,903[10]	2,620	1.96	49
Vermont	17,269[11]	932	5.40	4
Virginia	269,799	8,789	3.26	29
Washington	250,802	5,750	2.29	46
W. Virginia	63,312	2,691	4.25	13
Wisconsin	253,495	13,670	5.39	5
Wyoming	17,694	207	1.17	52
Puerto Rico	96,832	3,686	3.81	17

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 111 - Vocational Education Enrollment in Metals Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Metals Education Enrollment[2]	Total Metals Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	289,712	2.88	
Alabama	157,746	4,929	3.12	21
Alaska	20,926	563	2.69	29
Arizona	102,806	1,146	1.11	51
Arkansas	110,224	2,805	2.54	31
California	1,221,509	29,351	2.40	34
Colorado	101,521	3,638	3.58	14
Connecticut	127,609	4,462	3.50	16
Delaware	37,323	1,133	3.04	24
Dist. of C.	10,813	128	1.18	50
Florida	511,750	6,581	1.29	48
Georgia	292,211[3]	6,089	2.08	38
Hawaii	40,142	770	1.92	41
Idaho	33,146	1,029	3.10	22
Illinois	595,879	26,635	4.81	5
Indiana	154,556	8,057	5.21	3
Iowa	133,442	5,079	3.81	11
Kansas	100,052[4]	2,776	2.77	28
Kentucky	169,031[5]	6,650	3.93	10
Louisiana	176,312	6,637	3.76	13
Maine	29,840	414	1.39	47
Maryland	166,032	2,794	1.68	43
Massachusetts	163,799	7,490	4.57	8
Michigan	342,985	16,195	4.72	6
Minnesota	234,334	7,476	3.19	20
Mississippi	109,561	5,067	4.62	7
Missouri	162,625	5,241	3.22	18
Montana	32,267	919	2.85	26
Nebraska	68,796	1,730	2.51	32
Nevada	27,276[6]	406	1.49	44
New Hampshire	25,310	895	3.54	15
New Jersey	310,186	6,291	2.03	40
New Mexico	52,338	1,257	2.40	35
New York	754,489	12,794	1.70	42
N. Carolina	436,016[7]	8,887	2.04	39
N. Dakota	32,637	473	1.45	46
Ohio	412,007	14,032	3.41	17
Oklahoma	118,766[8]	3,682	3.10	23
Oregon	123,936	3,047	2.46	33
Pennsylvania	331,782[9]	13,269	4.00	9
Rhode Island	19,992	754	3.77	12
S. Carolina	101,615	3,047	3.00	25
S. Dakota	22,287	535	2.40	36
Tennessee	151,226	7,524	4.98	4
Texas	623,214	9,223	1.48	45
Utah	133,903[10]	3,458	2.58	30
Vermont	17,269[11]	556	3.22	19
Virginia	269,799	6,040	2.24	37
Washington	250,802	7,027	2.80	27
W. Virginia	63,312	3,713	5.86	1
Wisconsin	253,495	13,828	5.45	2
Wyoming	17,694	217	1.23	49
Puerto Rico	96,832	973	1.00	52

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 112 - Vocational Education Enrollment in Child Care Cluster as Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Child Care Education Enrollment[2]	Total Child Care Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	212,739	2.12	
Alabama	157,746	1,111	.70	35
Alaska	20,926	250	1.19	24
Arizona	102,806	5,865	5.70	1
Arkansas	110,224	188	.17	49
California	1,221,509	25,704	2.10	15
Colorado	101,521	742	.73	33
Connecticut	127,609	151	.12	51
Delaware	37,323	326	.87	30
Dist. of C.	10,813	328	3.03	10
Florida	511,750	5,476	1.07	26
Georgia	292,211[3]	4,361	1.49	23
Hawaii	40,142	460	1.15	25
Idaho	33,146	1,197	3.61	6
Illinois	595,879	32,111	5.39	2
Indiana	154,556	4,277	2.77	11
Iowa	133,442	2,225	1.67	21
Kansas	100,052[4]	1,963	1.96	16
Kentucky	169,031[5]	1,566	.93	28
Louisiana	176,312	268	.15	50
Maine	29,840	81	.27	43
Maryland	166,032	302	.18	47
Massachusetts	163,799	2,975	1.82	20
Michigan	342,985	13,433	3.92	5
Minnesota	234,334	5,065	2.16	14
Mississippi	109,561	800	.73	34
Missouri	162,625	5,271	3.24	8
Montana	32,267	134	.42	41
Nebraska	68,796[6]	133	.19	46
Nevada	27,276	642	2.35	13
New Hampshire	25,310	496	1.96	17
New Jersey	310,186	1,349	.43	40
New Mexico	52,338	846	1.62	22
New York	754,489[7]	34,961	4.63	3
N. Carolina	436,016	14,835	3.40	7
N. Dakota	32,637	315	.97	27
Ohio	412,007	11,391	2.76	12
Oklahoma	118,766[8]	323	.27	44
Oregon	123,936[9]	1,141	.92	29
Pennsylvania	331,782	2,803	.84	31
Rhode Island	19,992	0	0.00	52
S. Carolina	101,615	595	.59	36
S. Dakota	22,287	94	.42	42
Tennessee	151,226	1,151	.76	32
Texas	623,214[10]	11,487	1.84	19
Utah	133,903	2,591	1.93	18
Vermont	17,269[11]	[illegible]	4.37	4
Virginia	269,799	433	.16	48
Washington	250,802	7,658	3.05	9
W. Virginia	63,312	157	.25	45
Wisconsin	253,495	1,314	.52	39
Wyoming	17,694	96	.54	38
Puerto Rico	96,832	543	.56	37

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Vocational education enrollment in clothing cluster. The greatest percent to which vocational education enrollment in the clothing cluster was a portion of total vocational education enrollment was 15.86 percent (District of Columbia), but the highest percent reported by a *State* was 11.25 percent (Wisconsin); see Table 113. The States immediately above and below the mean of 4.69 percent were Pennsylvania (4.96 percent) and Washington (4.62 percent). The lowest percent was 0.13 percent (Maine).

Vocational education enrollment in drafting cluster. The largest percentage to which vocational education enrollment in the drafting cluster was part of total vocational education enrollment was 5.70 percent (Illinois); see Table 114. Immediately above and below the mean of 1.39 percent were Tennessee (1.42 percent) and Nebraska (1.37 percent). The lowest percent was reported by South Dakota (0.27 percent).

Vocational education enrollment in graphic cluster. The greatest percent to which vocational education enrollment in the graphic cluster was a portion of total vocational education enrollment was 3.56 percent (District of Columbia), but the largest percent reported by a *State* was 1.60 percent (Illinois); see Table 115. The States immediately above and below the mean of 0.68 percent were New Mexico and Pennsylvania (each with 0.82 percent) and Colorado and New Hampshire (each with 0.62 percent). In two cases there was no enrollment in the graphic cluster (Alaska, Montana).

Vocational education enrollment in service cluster. The largest percentage to which vocational education enrollment in the service cluster was part of total vocational education enrollment was 14.74 percent (Alaska); see Table 116. The States immediately above and below the mean of 5.22 percent were Alabama (5.30 percent) and Hawaii (4.93 percent). The lowest percent was 0.43 percent (New Mexico).

Vocational education enrollment in forest products cluster. The largest percent to which vocational education enrollment in the forest products cluster was part of total vocational education enrollment was 2.13 percent (Idaho); see Table 117. The State nearest the mean of 0.25 percent was Tennessee. The lowest percent was 0.00 percent, reported by Colorado, Delaware, the District of Columbia, Hawaii, Iowa, New Jersey, New Mexico, South Dakota, Vermont, Wyoming, and Puerto Rico.

Vocational education enrollment in home economics cluster. The greatest percentage to which vocational education enrollment in the home economics cluster was part of total vocational education enrollment was 39.10 percent (Rhode Island); see Table 118. The States immediately above and below the mean of 19.12 percent were New Hampshire (19.43 percent) and Wyoming (18.79 percent). The lowest percent was 1.48 percent (Illinois).

Vocational education enrollment in miscellaneous cluster. The largest percent to which vocational education enrollment in the miscellaneous cluster was a portion of total vocational education enrollment was 28.77 percent (Maine); see Table 119. The States immediately above and below the mean of 4.28 percent were Minnesota (4.52 percent) and Oregon (4.24 percent). The lowest percent was 0.00 percent (District of Columbia), but the lowest percent reported by a *State* was 0.09 percent (South Dakota).

Table 113 - Vocational Education Enrollment in Clothing Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Clothing Education Enrollment [2]	Total Clothing Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	471,719	4.69	
Alabama	157,746	4,183	2.65	40
Alaska	20,926	341	1.63	47
Arizona	102,806	3,353	3.26	32
Arkansas	110,224	3,262	2.96	38
California	1,221,509	36,331	2.97	37
Colorado	101,521	2,268	2.23	45
Connecticut	127,609	219	.17	51
Delaware	37,323	986	2.64	41
Dist. of C.	10,813	1,715	15.86	1
Florida	511,750	17,924	3.50	28
Georgia	292,211[3]	7,847	2.69	39
Hawaii	40,142	3,807	9.48	6
Idaho	33,146	3,439	10.38	5
Illinois	595,879	19,383	3.25	33
Indiana	154,556	16,960	10.97	4
Iowa	133,442	12,342	9.25	7
Kansas	100,052[4]	4,980	4.98	20
Kentucky	169,031[5]	6,166	3.65	25
Louisiana	176,312	755	.43	49
Maine	29,840	39	.13	52
Maryland	166,032	9,608	5.79	16
Massachusetts	163,799	5,907	3.61	27
Michigan	342,985	10,232	2.98	36
Minnesota	234,334	8,068	3.44	29
Mississippi	109,561	2,644	2.41	44
Missouri	162,625	9,685	5.96	14
Montana	32,267	823	2.55	42
Nebraska	68,796	3,673	5.34	18
Nevada	27,276[6]	480	1.76	46
New Hampshire	25,310	1,662	6.57	11
New Jersey	310,186	19,939	6.43	13
New Mexico	52,338	2,757	5.27	19
New York	754,489	82,991	11.00	3
N. Carolina	436,016[7]	32,166	7.38	9
N. Dakota	32,637	1,443	4.42	23
Ohio	412,007	10,483	2.54	43
Oklahoma	118,766[8]	4,321	3.64	26
Oregon	123,936	413	.33	50
Pennsylvania	331,782[9]	16,467	4.96	21
Rhode Island	19,992	1,162	5.81	15
S. Carolina	101,615	3,273	3.22	34
S. Dakota	22,287	748	3.36	31
Tennessee	151,226	5,135	3.40	30
Texas	623,214	27,006	4.33	24
Utah	133,903[10]	8,691	6.49	12
Vermont	17,269[11]	962	5.57	17
Virginia	269,799	1,774	.66	48
Washington	250,802	11,593	4.62	22
W. Virginia	63,312	4,530	7.16	10
Wisconsin	253,495	28,506	11.25	2
Wyoming	17,694	535	3.02	35
Puerto Rico	96,832	7,742	8.00	8

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972, (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 114 - Vocational Education Enrollment in Drafting Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Drafting Education Enrollment[2]	Total Drafting Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	139,622	1.39	
Alabama	157,746	2,013	1.28	18
Alaska	20,926	213	1.02	29
Arizona	102,806	409	.40	50
Arkansas	110,224	777	.70	44
California	1,221,509	17,813	1.46	14
Colorado	101,521	1,123	1.11	27
Connecticut	127,609	613	.48	49
Delaware	37,323	935	2.51	2
Dist. of C.	10,813	217	2.01	6
Florida	511,750	3,933	.77	40
Georgia	292,211[3]	2,236	.77	41
Hawaii	40,142	386	.96	32
Idaho	33,146	162	.49	48
Illinois	595,879	33,941	5.70	1
Indiana	154,556	2,304	1.49	13
Iowa	133,442	1,346	1.01	30
Kansas	100,052[4]	876	.88	36
Kentucky	169,031[5]	2,212	1.31	17
Louisiana	176,312	1,718	.97	31
Maine	29,840	342	1.15	24
Maryland	166,032	1,967	1.18	23
Massachusetts	163,799	2,789	1.70	9
Michigan	342,985	5,435	1.58	11
Minnesota	234,334	1,315	.56	47
Mississippi	109,561	1,371	1.25	21
Missouri	162,625	2,083	1.28	19
Montana	32,267	801	2.48	3
Nebraska	68,796	941	1.37	16
Nevada	27,276[6]	242	.89	35
New Hampshire	25,310	479	1.89	7
New Jersey	310,186	2,336	.75	43
New Mexico	52,338	353	.67	45
New York	754,489	8,584	1.14	25
N. Carolina	436,016[7]	9,306	2.13	5
N. Dakota	32,637	360	1.10	28
Ohio	412,007	3,129	.76	42
Oklahoma	118,766[8]	1,051	.88	37
Oregon	123,936	1,535	1.24	22
Pennsylvania	331,782[9]	2,912	.88	38
Rhode Island	19,992	428	2.14	4
S. Carolina	101,615	933	.92	34
S. Dakota	22,287	60	.27	52
Tennessee	151,226	2,149	1.42	15
Texas	623,214	3,958	.64	46
Utah	133,903[10]	1,683	1.26	20
Vermont	17,269[11]	317	1.84	8
Virginia	269,799	2,602	.96	33
Washington	250,802	846	.34	51
W. Virginia	63,312	1,015	1.60	10
Wisconsin	253,495	3,853	1.52	12
Wyoming	17,694	138	.78	39
Puerto Rico	96,832	1,082	1.12	26

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 115 - Vocational Education Enrollment in Graphic Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Graphic Education Enrollment[2]	Total Graphic Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	68,836	.68	
Alabama	157,746	624	.40	28
Alaska	20,926	0	0.00	51
Arizona	102,806	308	.30	34
Arkansas	110,224	160	.15	48
California	1,221,509	13,362	1.09	5
Colorado	101,521	634	.62	16
Connecticut	127,609	663	.52	21
Delaware	37,323	425	1.14	4
Dist. of C.	10,813	385	3.56	1
Florida	511,750	1,183	.23	45
Georgia	292,211[3]	698	.24	42
Hawaii	40,142	96	.24	43
Idaho	33,146	64	.19	47
Illinois	595,879	9,537	1.60	2
Indiana	154,556	907	.59	18
Iowa	133,442	522	.39	29
Kansas	100,052[4]	830	.83	13
Kentucky	169,031[5]	568	.34	31
Louisiana	176,312	209	.12	49
Maine	29,840	157	.53	19
Maryland	166,032	1,600	.96	10
Massachusetts	163,799	2,300	1.40	3
Michigan	342,985	3,056	.89	12
Minnesota	234,334	996	.43	25
Mississippi	109,561	225	.21	46
Missouri	162,625	1,525	.94	11
Montana	32,267	0	0.00	52
Nebraska	68,796	170	.25	41
Nevada	27,276[6]	89	.33	32
New Hampshire	25,310	157	.62	17
New Jersey	310,186	3,099	1.00	9
New Mexico	52,338	429	.82	14
New York	754,489	7,914	1.05	8
N. Carolina	436,016[7]	2,286	.52	22
N. Dakota	32,637	156	.48	23
Ohio	412,007	1,686	.41	27
Oklahoma	118,766[8]	624	.53	20
Oregon	123,936	428	.35	30
Pennsylvania	331,782[9]	2,715	.82	15
Rhode Island	19,992	217	1.09	6
S. Carolina	101,615	278	.27	38
S. Dakota	22,287	53	.24	44
Tennessee	151,226	421	.28	37
Texas	623,214	1,639	.26	40
Utah	133,903[10]	578	.43	26
Vermont	17,269[11]	82	.47	24
Virginia	269,799	854	.32	33
Washington	250,802	715	.29	36
W. Virginia	63,312	187	.30	35
Wisconsin	253,495	2,751	1.09	7
Wyoming	17,694	10	.06	50
Puerto Rico	96,832	264	.27	39

[1] Based on the new Oregon Cluster Taxonomy.

[2] These totals do not include special programs.

[3] Includes 2,470 duplication within occupational areas.

[4] Includes 1,233 duplication within occupational areas.

[5] Includes 4,162 duplication within occupational areas.

[6] Includes 6,659 duplication within occupational areas.

[7] Includes 5,390 duplication within occupational areas.

[8] Includes 11,371 duplication within occupational areas.

[9] Includes 4,324 duplication within occupational areas.

[10] Includes 33,029 duplication within occupational areas.

[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 116 - Vocational Education Enrollment in Service Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Service Enrollment [2]	Total Service Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	524,307	5.22	
Alabama	157,746	8,360	5.30	12
Alaska	20,926	3,084	14.74	1
Arizona	102,806	2,358	2.29	33
Arkansas	110,224	3,481	3.16	26
California	1,221,509	97,63[illegible]	7.99	6
Colorado	101,521	2,937	2.89	32
Connecticut	127,609	4,503	3.53	23
Delaware	37,323	1,203	3.22	25
Dist. of C.	10,813	507	4.69	16
Florida	511,750	20,365	3.98	21
Georgia	292,211[3]	20,621	7.06	7
Hawaii	40,142	1,980	4.93	13
Idaho	33,146	712	2.15	35
Illinois	595,879	22,671	3.80	22
Indiana	154,556	1,997	1.29	45
Iowa	133,442	2,826	2.12	36
Kansas	100,052[4]	6,729	6.73	8
Kentucky	169,031[5]	7,246	4.29	18
Louisiana	176,312	5,380	3.05	28
Maine	29,840	130	.44	51
Maryland	166,032	5,753	3.46	24
Massachusetts	163,799	7,158	4.37	17
Michigan	342,985	37,934	11.06	4
Minnesota	234,334	12,492	5.33	11
Mississippi	109,561	1,666	1.52	40
Missouri	162,625	2,391	1.47	42
Montana	32,267	993	3.08	27
Nebraska	68,796	956	1.39	44
Nevada	27,276[6]	1,101	4.04	20
New Hampshire	25,310	1,193	4.71	15
New Jersey	310,186	6,432	2.07	37
New Mexico	52,338	225	.43	52
New York	754,489	36,838	4.88	14
N. Carolina	436,016[7]	54,557	12.51	2
N. Dakota	32,637	492	1.51	41
Ohio	412,007	12,241	2.97	31
Oklahoma	118,766[8]	1,922	1.62	38
Oregon	123,936	6,707	5.41	10
Pennsylvania	331,782[9]	37,935	11.43	3
Rhode Island	19,992	180	.90	48
S. Carolina	101,615	1,429	1.41	43
S. Dakota	22,287	155	.70	49
Tennessee	151,226	4,595	3.04	29
Texas	623,214	14,173	2.27	34
Utah	133,903[10]	4,013	3.00	30
Vermont	17,269[11]	102	.59	50
Virginia	269,799	11,176	4.14	19
Washington	250,802	27,300	10.89	5
W. Virginia	63,312	600	.95	47
Wisconsin	253,495	15,167	5.98	9
Wyoming	17,694	206	1.16	46
Puerto Rico	96,832	1,496	1.54	39

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 117 - Vocational Education Enrollment in Forest Products Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Forest Products Enrollment[2]	Total Forest Products Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	24,230	.24	
Alabama	157,746	1,043	.66	7
Alaska	20,926	21	.10	31
Arizona	102,806	1,145	1.11	4
Arkansas	110,224	885	.80	6
California	1,221,509	2,149	.18	23
Colorado	101,521	0	0.00	42
Connecticut	127,609	108	.08	33
Delaware	37,323	0	0.00	43
Dist. of C.	10,813	0	0.00	44
Florida	511,750	780	.15	27
Georgia	292,211[3]	1,323	.45	11
Hawaii	40,142	0	0.00	45
Idaho	33,146	707	2.13	1
Illinois	595,879	41	.01	40
Indiana	154,556	283	.18	24
Iowa	133,442	0	0.00	46
Kansas	100,052[4]	36	.04	37
Kentucky	169,031[5]	128	.08	34
Louisiana	176,312	188	.11	30
Maine	29,840	90	.30	19
Maryland	166,032	65	.04	38
Massachusetts	163,799	135	.08	35
Michigan	342,985	742	.22	21
Minnesota	234,334	854	.36	16
Mississippi	109,561	184	.17	25
Missouri	162,625	622	.38	14
Montana	32,267	271	.84	5
Nebraska	68,796	68	.10	32
Nevada	27,276[6]	136	.50	9
New Hampshire	25,310	286	1.13	3
New Jersey	310,186	1	0.00	47
New Mexico	52,338	0	0.00	48
New York	754,489	3,762	.50	10
N. Carolina	436,016[7]	1,515	.35	17
N. Dakota	32,637	104	.32	18
Ohio	412,007	180	.04	39
Oklahoma	118,766[8]	510	.43	12
Oregon	123,936	1,445	1.17	2
Pennsylvania	331,782[9]	386	.12	29
Rhode Island	19,992	27	.14	28
S. Carolina	101,615	422	.42	13
S. Dakota	22,287	0	0.00	49
Tennessee	151,226	376	.25	20
Texas	623,214	353	.06	36
Utah	133,903[10]	7	.01	41
Vermont	17,269[11]	0	0.00	50
Virginia	269,799	467	.17	26
Washington	250,802	922	.37	15
W. Virginia	63,312	121	.19	22
Wisconsin	253,495	1,342	.53	8
Wyoming	17,694	0	0.00	51
Puerto Rico	96,832	0	0.00	52

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 118 - Vocational Education Enrollment in Home Economics Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Home Economics Education Enrollment[2]	Total Home Economics Education Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	1,921,803	19.12	
Alabama	157,746	35,404	22.44	25
Alaska	20,926	1,470	7.02	49
Arizona	102,806	17,927	17.44	35
Arkansas	110,224	37,286	33.83	4
California	1,221,509	146,904	12.03	42
Colorado	101,521	24,495	24.13	20
Connecticut	127,609	27,490	21.54	26
Delaware	37,323	6,061	16.24	37
Dist. of C.	10,813	920	8.51	48
Florida	511,750	140,363	27.43	14
Georgia	292,211[3]	67,191	22.99	24
Hawaii	40,142	4,211	10.49	45
Idaho	33,146	8,802	26.56	15
Illinois	595,879	8,846	1.48	52
Indiana	154,556	22,240	14.39	41
Iowa	133,442	28,213	21.14	27
Kansas	100,052[4]	14,860	14.85	39
Kentucky	169,031[5]	43,256	25.59	16
Louisiana	176,312	54,587	30.96	6
Maine	29,840	2,793	9.36	47
Maryland	166,032	39,307	23.67	22
Massachusetts	163,799	5,961	3.64	51
Michigan	342,985	55,237	16.10	38
Minnesota	234,334	59,391	25.34	17
Mississippi	109,561	30,205	27.57	12
Missouri	162,625	45,187	27.79	11
Montana	32,267	5,691	17.64	34
Nebraska	68,796	17,170	24.96	19
Nevada	27,276[6]	2,916	10.69	44
New Hampshire	25,310	4,918	19.43	31
New Jersey	310,186	73,439	23.68	21
New Mexico	52,338	10,279	19.64	30
New York	754,489	74,985	9.94	46
N. Carolina	436,016[7]	80,944	18.56	33
N. Dakota	32,637	9,177	28.12	9
Ohio	412,007	113,039	27.44	13
Oklahoma	118,766[8]	27,750	23.37	23
Oregon	123,936	40,187	32.43	5
Pennsylvania	331,782[9]	37,879	11.42	43
Rhode Island	19,992	7,817	39.10	1
S. Carolina	101,615	28,539	28.09	10
S. Dakota	22,287	8,357	37.50	2
Tennessee	151,226	45,493	30.08	7
Texas	623,214	223,152	35.81	3
Utah	133,903[10]	19,459	14.53	40
Vermont	17,269[11]	3,502	20.28	28
Virginia	269,799	45,076	16.71	36
Washington	250,802	49,542	19.75	29
W. Virginia	63,312	15,890	25.10	18
Wisconsin	253,495	15,935	6.29	50
Wyoming	17,694	3,325	18.79	32
Puerto Rico	96,832	28,735	29.68	8

[1] Based on the new Oregon Cluster Taxonomy.
[2] These totals do not include special programs.
[3] Includes 2,470 duplication within occupational areas.
[4] Includes 1,233 duplication within occupational areas.
[5] Includes 4,162 duplication within occupational areas.
[6] Includes 6,659 duplication within occupational areas.
[7] Includes 5,390 duplication within occupational areas.
[8] Includes 11,371 duplication within occupational areas.
[9] Includes 4,324 duplication within occupational areas.
[10] Includes 33,029 duplication within occupational areas.
[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

Table 119 - Vocational Education Enrollment in Miscellaneous Cluster as a Percent of Total Vocational Education Enrollment, 1971-72[1]

States	Total Vocational Education Enrollment	Total Miscellaneous Education Enrollment[2]	Total Miscellaneous Enrollment as a Percent of Total Vocational Education Enrollment	Rank Order
U.S. TOTAL	10,053,420	429,916	4.28	
Alabama	157,746	2,046	1.30	41
Alaska	20,926	4,540	21.70	2
Arizona	102,806	16,256	15.81	5
Arkansas	110,224	10,898	9.89	10
California	1,221,509	26,491	2.17	31
Colorado	101,521	3,773	3.72	22
Connecticut	127,609	9,480	7.43	14
Delaware	37,323	1,173	3.14	25
Dist. of C.	10,813	0	0.00	52
Florida	511,750	27,649	5.40	18
Georgia	292,211[3]	2,043	.70	46
Hawaii	40,142	791	1.97	33
Idaho	33,146	450	1.36	40
Illinois	595,879	7,010	1.18	42
Indiana	154,556	2,224	1.44	39
Iowa	133,442	2,555	1.91	34
Kansas	100,052[4]	20,413	20.40	3
Kentucky	169,031[5]	4,195	2.48	29
Louisiana	176,312	573	.32	50
Maine	29,840	8,587	28.78	1
Maryland	166,032	6,641	4.00	21
Massachusetts	163,799	2,706	1.65	38
Michigan	342,385	9,679	2.82	28
Minnesota	234,334	10,586	4.52	19
Mississippi	109,561	665	.61	47
Missouri	162,625	3,240	1.99	32
Montana	32,267	2,275	7.05	15
Nebraska	68,796	7,446	10.82	8
Nevada	27,276[6]	5,252	19.26	4
New Hampshire	25,310	454	1.79	36
New Jersey	310,186	11,301	3.64	23
New Mexico	52,338	1,746	3.34	24
New York	754,489	22,921	3.04	27
N. Carolina	436,016[7]	25,340	5.81	16
N. Dakota	32,637	182	.56	48
Ohio	412,007	36,530	8.87	13
Oklahoma	118,766[8]	10,655	8.97	12
Oregon	123,936	5,256	4.24	20
Pennsylvania	331,782[9]	42,049	12.67	7
Rhode Island	19,992	1,862	9.31	11
S. Carolina	101,615	1,859	1.83	35
S. Dakota	22,287	19	.09	51
Tennessee	151,226	8,504	5.62	17
Texas	623,214	7,254	1.16	44
Utah	133,903[10]	2,365	1.77	37
Vermont	17,269[11]	1,716	9.94	9
Virginia	269,799	34,664	12.85	6
Washington	250,802	6,039	2.41	30
W. Virginia	63,312	586	.93	45
Wisconsin	253,495	7,761	3.06	26
Wyoming	17,694	80	.45	49
Puerto Rico	96,832	1,136	1.17	43

[1] Based on the new Oregon Cluster Taxonomy.

[2] These totals do not include special programs.

[3] Includes 2,470 duplication within occupational areas.

[4] Includes 1,233 duplication within occupational areas.

[5] Includes 4,162 duplication within occupational areas.

[6] Includes 6,659 duplication within occupational areas.

[7] Includes 5,390 duplication within occupational areas.

[8] Includes 11,371 duplication within occupational areas.

[9] Includes 4,324 duplication within occupational areas.

[10] Includes 33,029 duplication within occupational areas.

[11] Includes 366 duplication within occupational areas.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972. (Various States).

Cluster Taxonomy prepared by Oregon Department of Education, Division of Vocational Education, Portland, Oregon.

In reviewing the clusters, it becomes apparent that one of the characteristics of this approach is that a larger number of subdivisions is produced -- nineteen clusters in contrast to seven traditional occupational areas. Another characteristic is that the percents of total enrollment found in the clusters, as compared to occupational areas, are smaller -- typically 6.5, 3.5, 4.0. Only two clusters exceed ten percent -- secretarial was 11.5 percent and home economics was 19.1 percent.

A review of the titles of the clusters lends face validity to their uniqueness -- marketing, food service, construction, electricity - electronics, drafting, and others. An in-depth examination of the content and commonality of the competencies is a logical next step in determining validity.

At this time the new cluster approach is outside the mainstream of vocational education -- outside of planning, organizing, operating and reporting. A strategy to promote adoption of the cluster taxonomy is called for if the approach is to become an integral part of vocational education.

SUMMARY

Enrollment

The total enrollment in vocational education reached an all-time high of 9,984,416. The enrollment has increased 145 percent in the past ten years (FY 1962: 4,069,771).

Almost without exception, the numbers enrolled at each of the three grade levels have increased each year since 1965, the first year in which data were available on the levels. The growth rate has averaged over ten percent per year and resulted in well over a 100 percent growth in enrollment in vocational education.

Enrollment in vocational education at each of the three levels -- secondary, post-secondary, and adult -- is at an all-time high: secondary, 5,617,334; post-secondary, 1,303,052; and adult, 3,064,030. The growth rate in secondary and post-secondary is impressive; the growth of adult warrants careful examination.

As noted, the growth rate for the three levels is not the same. The growth rate of secondary vocational education was only slightly less than the growth rate of total vocational education; secondary vocational education enrollment showed a 100 percent growth. Over half of the total enrollment in vocational education was at the secondary level.

Post-secondary vocational education showed a similar line of growth, that is, almost a straight line inclined upward. However, the growth incline for post-secondary was more sharply upward. Enrollment increased about 500 percent in the period from FY 1965 to FY 1972.

The growth rate of adult vocational education has been both erratic and low. In the period under consideration, the enrollment increased only thirty percent. Even in FY 1972, the State which enrolled the highest percent of the adult population enrolled only one person in one hundred.

Neither the cooperative education program nor the work study program was being utilized to any degree near its presumed potential. The cooperative program seems to have the greatest potential for educational relevance. The work study program could be very instrumental in contributing to the financial stability of the economically disadvantaged. A more definitive examination is warranted of both of these programs.

The enrollment in vocational education of members of minority groups continued to be high. Each minority group was enrolled to a greater percentage than the group was present in the general population.

One person in seven, or two or three persons in every class in vocational education, was a disadvantaged person. That is, 13.90 percent of those enrolled were disadvantaged. The enrollment data are strong evidence that vocational education was providing an educational opportunity for over one million persons. These were youth and adults who would otherwise experience great difficulty, if not outright failure, in their efforts to reap the benefits of American public education.

Vocational educators have had only limited success in bringing the handicapped into the class, shop, and laboratory. Nationally, less than two percent of those enrolled have been identified as handicapped; authorities place the percent of handicapped in the general population as much higher. While there were doubtless other handicapped persons who were enrolled in vocational education and not identified, their numbers were probably not great enough to refute the implication that providing training for the handicapped is one of the major tasks immediately facing the field of vocational education.

Slightly over half of those enrolled in vocational education were females (male: 4,442,617 or 44.50 percent; female: 5,541,799 or 55.50 percent). However, if we subtract the enrollment of consumer and homemaking education (2,581,851), which is not wage-oriented, from the total enrollment in vocational education (9,984,416), then recalculate the male and female percentages, we find that male enrollment was 4,442,617 or 60.01 percent, and female enrollment was 2,959,948 or 39.99 percent.

Vocational education was serving persons in metropolitan areas to a lower percent than in non-metropolitan or rural areas. In metropolitan areas, 4.82 percent of the population was enrolled in vocational education; in central cities, 4.72 percent; in non-metropolitan (non-SMSA) areas, 7.03 percent. There appears to be a trend of greater access to vocational education in rural areas and lesser access in the inner cities.

All service or occupational areas -- agriculture, office occupations, etc. -- showed continued increase in enrollments. Within the service or occupational areas, there was wide variation among States. A number of States were enjoying high enrollment growth in one or more service areas by establishing new programs which were well received by the public.

Financial

Vocational education is financed, in the main, by the States and by local educational agencies. Federal financing, a substantial sum, serves to stimulate State and local funding.

Expenditures for vocational education exceeded two and a half billion dollars in Fiscal year 1972. Of this sum, slightly over $464 million was from Federal funds for vocational education, while nearly $2.2 billion was from State and local monies.

Per student expenditures continue to rise. In Fiscal year 1972 the average per student expenditure was $265.85, when including Federal, State, and local monies. This compares with $142.48 in 1967, showing a substantial rise in a five-year period.

However, the amount of increase in per student expenditures was substantially less than in recent years. Whereas, in recent years increases have been on the order of $25 - $50, increases were less than $4 per person in Fiscal year 1972 over 1971.

While the average expenditure of Federal funds for each vocational education student was $46.52, the States exercised great latitude in determining the amounts of Federal monies to be spent at the three grade levels of vocational education. The averages were $52.37 for secondary, $93.87 for post-secondary, and $14.35 for each adult vocational education student.

In Fiscal 1972, the average per student expenditure from Federal, State, and local sources was $265.85 for the Nation. When considering all three levels of vocational education, the per student expenditure averaged $310.47 for secondary, $538.15 for post-secondary, and $64.49 for adult vocational education.

Viewed from any direction the funding of adult vocational education is markedly lower than for other vocational education levels -- in fact, funding of adult vocational education is less than one-third as much as other levels on a per student basis.

The legal requirement is that States match Federal monies for vocational education on a basis of no less than one State dollar expended for each Federal dollar expended, that is, a ratio of no less than 1 to 1 (1:1). Through the years, States have exceeded minimum matching requirements by using dollars appropriated at the State level for vocational education and sums of local monies for vocational education.

In Fiscal year 1972, the matching ratio for all States and all levels of vocational education was $4.71:1. That is, the national average was $4.71 expended of State and local monies for each $1.00 expended of Federal monies. The States vary widely in their level of matching, from $11.58:1 to $1.55:1.

State and local matching is believed to be in excess of the amounts reported here. Some States report, for state-level matching, only funds which are appropriated by State legislatures specifically for vocational education. Funds appropriated for other categories, even though expended on vocational education, are not reported.

At the local level, many schools do not report indirect costs of vocational education. For example, local retirement matching and social security matching which could have been pro-rated for vocational personnel is frequently not reported. For reasons such as these, the State and local matching can be considered substantially higher than can be currently documented.

Unfortunately, inflation in the economy has diminished the purchasing power of the dollars expended for vocational education -- so much so that on a per student basis, the Federal monies were actually less in 1972 than was the case in 1966.

Completion and Placement

Approximately half of all persons were employed who completed vocational education or left vocational education early with marketable skills. For a variety of reasons, not all persons who completed training or left training early with marketable skills were available for work. That is to say, the percent employed was drawn from a group of persons including not only those available for work but also persons not available due to things such as pursuing further education and entering military service. When considering only those available for work, nearly ninety-six percent were placed who had completed training or had left training early with marketable skills.

Similarly, high levels of employment were reported by the States for all three levels of vocational education. In secondary vocational education, of those either completing training or leaving early with marketable skills, 46.25 percent were employed; of only those available for work, 96.14 percent were employed.

In post-secondary vocational education, of all persons either completing training or leaving early with marketable skills, 55.96 percent were employed; of only thos available for work, 94.90 percent were employed.

In adult vocational education, of all persons either completing training or leaving early with marketable skills, 56.53 percent were employed; of only those available for work, 93.96 percent were employed.

The reality of placement of vocational education trainees has not been established nationally to the extent possible or desirable. The foregoing data, like most data in Project Baseline, were compiled from State reports which in most States were compiled from local reports. If vocational educators are to have unquestionable refutation or defense against critics, a follow-up study of national scope is essential and of top priority. To place the findings of such a study in proper perspective the follow-up should include both academic-tract students and general-education-tract students so that comparison could be made.

When the data are gathered and analyzed by occupational area, rather than by educational level, the completion and placement data are comparable.

*In agricultural education, 50.10 percent of completers and early leavers were placed. Of only those available for work, 99.25 percent were employed.

*In distributive education, 52.83 percent of completers and early leavers were placed. Of only those available for work, 98.91 percent were employed.

*In health occupations education, 61.75 percent of completers and early leavers were placed. Of only those available for work, 96.88 percent were employed.

*In occupational home economics education, 39.95 percent of completers and early leavers were placed. Of only those available for work, 88.54 percent were employed.

*In office occupations, 45.64 percent of completers and early leavers were placed. Of only those available for work, 92.00 percent were employed.

*In technical education, 56.64 percent of completers and early leavers were placed. Of only those available for work, 98.04 percent were employed.

*In trade and industrial education, 49.56 percent of completers and early leavers were placed. Of only those available for work, 98.45 percent were employed.

The labor demand projected for 1972 was compared with completions and placement in vocational education for 1972. The labor demand projected was met by completions at percentaged ranging from a low of 1.59 percent in distributive education to a high of 52.82 percent in office occupations. The projected labor demand was met by employment placements ranging from a low of 9.27 percent in occupational home economics to a high of 24.72 percent in technical education.

Cluster Taxonomy

A new cluster taxonomy has been developed based on common elements of competency as presented in the publication Vocational Education and Occupations. The taxonomy has eighteen clusters, each with a common focus, and a nineteenth miscellaneous cluster.

The cluster titles and the percents to which their respective enrollments are a part of the total enrollment in vocational education are as follows: agriculture, 6.5; marketing, 5.5; health, 3.3; food service, 3.5; accounting, 3.3; clerical, 6.1; secretarial, 11.5; industrial mechanics, 7.4; construction, 4.1; electricity-electronics, 3.5; metals, 2.9; child care, 2.1; clothing, 4.7; drafting, 1.4; graphic, 0.7; service, 5.2; forest products, 0.2; home economics, 19.1; miscellaneous, 4.3.

Each cluster is composed of its plural number of job titles; each job title has a USOE code number. To the extent to which the cluster taxonomy is used to plan, organize, operate, and report programs in vocational education, the taxonomy will be helpful in strengthening the relating of data from the U.S. Department of Health, Education, and Welfare, and the U.S. Department of Labor.

Chapter IV

COMPARISON OF NATIONAL VOCATIONAL EDUCATION DATA

Fiscal Years 1971 and 1972

Considering the Nation as a whole, vocational education enrollment continues to increase year after year. The fact of enrollment increase has been true since 1917, the year in which Federal support of vocational education was established. But the national enrollment does not follow any continuous pattern of growth. Enrollment is influenced by economic factors, legislative acts, wars, and other variables which stimulate or impede participation in vocational education. It is believed that a particularly powerful variable is the freedom enjoyed by each State as it implements the principles of vocational education in ways best suited to the State's particular goals and purposes. The tables and narrative which immediately follow characterize not only change in total vocational education enrollment, but also change in enrollment at the secondary, post-secondary, and adult levels.

ENROLLMENT

Total vocational education enrollment. Table 120 shows a comparison of enrollment for FY 1971 and FY 1972 and indicates the percent of change for each of the States. All but one State (Pennsylvania) showed an increase in enrollment. The District of Columbia and Puerto Rico showed decreases.

From FY 1971 to FY 1972, the total enrollment in vocational education for the Nation increased by 9.25 percent. Alaska had the greatest increase in enrollment, 59.17 percent. The States nearest the national average of 9.25 percent were Idaho, with an increase of 9.14 percent, Rhode Island, with an increase of 8.83 percent, and New Hampshire, with 9.65 percent. The State with the greatest decrease in enrollment was Pennsylvania with a negative 3.07 percent. Puerto Rico had an 11.82 percent decline in enrollment from FY 1971 to FY 1972.

Alaska showed the greatest percent of enrollment increase and reported development of new programs and availability of more money as the factors which influenced the growth. Louisiana showed little change in enrollment, an increase of 1.1 percent. It reported a lack of facilities to accommodate more students.

Local schools were forced to carry the entire cost of additional vocational teachers. Pennsylvania stressed that its enrollment figures were strictly unduplicated -- certainly laudable. Furthermore, it is less concerned with enrollments in consumer and homemaking education. Also, its area schools were under development for secondary education students. In Puerto Rico prior to FY 1972, consumer and homemaking education was required at the ninth grade level; in FY 1972, the requirement was transferred to the eighth grade level. Therefore, students previously counted in the vocational education enrollment for grades 9-12 no longer show up in these enrollment figures.

Table 120 - Percent of Change in Numbers of Persons Enrolled in Vocational Education, 1970-71 to 1971-72

States	Numbers of Persons Enrolled in Vocational Education		Percent of Change in Numbers of Persons Enrolled
	1970-71	1971-72	
U.S. TOTAL	9,139,304	9,984,416	9.25
Alabama	147,220	157,746	7.15
Alaska	13,147	20,926	59.17
Arizona	88,471	102,806	16.20
Arkansas	103,907	110,224	6.08
California	1,204,611	1,221,509	1.40
Colorado	95,309	101,521	6.52
Connecticut	113,694	127,609	12.24
Delaware	31,211	37,323	19.58
Dist. of C.	11,008	10,813	-1.77
Florida	438,087	511,750	16.81
Georgia	255,887	289,741	13.23
Hawaii	38,692	40,142	3.75
Idaho	30,370	33,146	9.14
Illinois	541,178	595,879	10.11
Indiana	131,338	154,556	17.68
Iowa	127,911	133,442	4.32
Kansas	93,151	98,819	6.08
Kentucky	145,324	164,869	13.45
Louisiana	174,373	176,312	1.11
Maine	23,424	29,840	27.39
Maryland	141,774	166,032	17.11
Massachusetts	121,950	163,799	34.32
Michigan	320,055	342,985	7.16
Minnesota	219,085	234,334	6.96
Mississippi	101,768	109,561	7.66
Missouri	143,632	162,625	13.22
Montana	27,328	32,267	18.07
Nebraska	65,318	68,796	5.32
Nevada	18,110	20,617	13.84
New Hampshire	23,082	25,310	9.65
New Jersey	292,516	310,186	6.04
New Mexico	49,178	52,338	6.43
New York	669,717	754,489	12.66
N. Carolina	376,817	430,626	14.28
N. Dakota	26,215	32,637	24.50
Ohio	389,064	412,007	5.90
Oklahoma	104,223	107,395	3.04
Oregon	101,090	123,936	22.60
Pennsylvania	337,835	327,458	-3.07
Rhode Island	18,370	19,992	8.83
S. Carolina	93,616	101,615	8.54
S. Dakota	21,413	22,287	4.08
Tennessee	143,572	151,226	5.33
Texas	577,695	623,214	7.88
Utah	94,983	100,874	6.20
Vermont	12,593	16,903	34.23
Virginia	243,000	269,799	11.03
Washington	226,118	250,802	10.92
W. Virginia	59,199	63,312	6.95
Wisconsin	187,637	253,495	35.10
Wyoming	14,249	17,694	24.18
Puerto Rico	109,809	96,832	-11.82

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Enrollment in secondary vocational education. Vocational education began as a secondary school program and a program for employed adults. Therefore, when the secondary school program is considered, it must be recalled that secondary vocational education is one of the long established programs. Being long established, the program has direction and stability; it is less influenced by societal changes than are newer programs. Comparatively, the growth of secondary vocational education may not increase as dramatically as does the growth of a newer program.

The need for more secondary vocational education is still great. The need for occupational training is being met for only one youth in three of youths in school. There is currently no program of significant size in vocational education to meet the needs of out-of-school youths.

For the national enrollment in secondary vocational education, there was a 9.05 percent increase from FY 1971 to FY 1972; see Table 121.

Wisconsin showed the greatest increase in enrollment, 81.14 percent. New York was near the mid-point of 9.05 percent with an increase in enrollment of 8.46 percent. The State with the greatest loss in enrollment was Hawaii, which reported a loss of 17.82 percent. Puerto Rico was lower still with a 22.67 percent decrease.

An increase in the number of persons enrolled, expressed as a percent, was reported by forty-one States and the District of Columbia. Nine States and Puerto Rico showed a decrease in enrollment.

Wisconsin reported that it had adopted a definition of vocational education more uniform with that of other States. Presumably, its previous definition was unrealistically constraining and the new definition allowed reporting of programs and persons not included heretofore. Arizona stated that most occupational areas increased in enrollment. However, a new unduplicated count in consumer and homemaking enrollment resulted in substantial loss in enrollment numbers and offset gains in other areas. Iowa said its secondary-school-age population had stabilized, as had its secondary vocational education enrollment.

Despite the growth figures indicated in Table 121, in no way has vocational education saturated the need for vocational instruction in the secondary schools in any State. This statement can be made with confidence because a large number of students are graduated from the high schools each year without skills and knowledges that are marketable in the labor force, and a large percentage of these graduates do not continue their education into post-secondary institutions for vocational education purposes.

Table 121 - Percent of Change in Numbers of Persons Enrolled in Secondary Vocational Education, 1970-71 to 1971-72

States	Numbers of Persons Enrolled in Secondary Vocational Education		Percent of Change in Secondary Vocational Enrollment
	1970-71	1971-72	
U.S. TOTAL	5,151,058	5,617,334	9.05
Alabama	89,061	93,350	4.82
Alaska	8,494	11,854	39.56
Arizona	50,310	50,279	-.06
Arkansas	53,996	61,692	14.25
California	540,474	580,211	7.35
Colorado	45,998	52,043	13.14
Connecticut	78,191	95,802	22.52
Delaware	27,439	32,049	16.80
Dist. of C.	5,681	5,706	.44
Florida	201,016	260,082	29.38
Georgia	157,829	162,359	2.87
Hawaii	23,040	18,935	-17.82
Idaho	21,844	22,377	2.44
Illinois	432,217	479,099	10.85
Indiana	86,479	101,506	17.38
Iowa	50,211	52,394	4.35
Kansas	38,468	42,813	11.30
Kentucky	87,872	99,169	12.86
Louisiana	126,251	126,184	-.05
Maine	16,458	16,779	1.95
Maryland	100,668	111,701	10.96
Massachusetts	95,411	121,684	27.54
Michigan	164,234	182,185	10.93
Minnesota	104,837	110,086	5.01
Mississippi	54,729	57,819	5.65
Missouri	98,547	112,167	13.82
Montana	16,707	19,416	16.21
Nebraska	38,336	36,052	-5.96
Nevada	12,596	14,469	14.87
New Hampshire	18,378	17,921	-2.49
New Jersey	181,476	200,439	10.45
New Mexico	35,305	40,038	13.41
New York	445,606	483,285	8.46
N. Carolina	161,697	174,984	8.22
N. Dakota	16,470	20,067	21.84
Ohio	181,937	195,833	7.64
Oklahoma	60,856	61,418	.92
Oregon	55,022	64,161	16.61
Pennsylvania	184,619	189,073	2.41
Rhode Island	12,026	13,250	10.18
S. Carolina	70,655	75,880	7.40
S. Dakota	14,331	15,454	7.84
Tennessee	95,472	94,960	-.54
Texas	306,570	305,222	-.44
Utah	65,131	62,545	-3.97
Vermont	9,601	12,142	26.47
Virginia	129,770	127,640	-1.64
Washington	111,681	125,767	12.61
W. Virginia	33,161	38,334	15.60
Wisconsin	57,017	103,278	81.14
Wyoming	11,851	15,089	27.32
Puerto Rico	65,032	50,292	-22.67

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Post-secondary vocational education. Post-secondary vocational education is essentially a new program in vocational education. It began with the area schools in the late '50s and was stimulated further by the Vocational Education Act of 1963. Most States were caught short in developing post-secondary vocational education programs because a State philosophy, objectives, and delivery system for such programs had not been developed. For example, there has been considerable confusion as to the definition of post-secondary; the definition tends to vary greatly among the States. Federal legislation has challenged the States by earmarking monies for post-secondary vocational education. Now, most States have a network of programs underway and enrollment in post-secondary vocational education is the fastest growing program in vocational education -- moving rapidly to meet emerging needs for technical instruction.

From FY 1971 to FY 1972, increased enrollments in post-secondary vocational education were reported by forty-five States, the District of Columbia, and Puerto Rico. Decreased enrollments were reported by five States; see Table 122.

From FY 1971 to FY 1972, the change in enrollment ranged from an increase of 249.13 percent (Alaska) to a decrease of 17.32 percent (New Jersey); the mid-point was 14.28 percent (Idaho was nearest with 15.43 percent).

Alaska reported the completion of new facilities and the establishment of new programs as the cause of the high percentage increase. Arizona made a similar statement in reporting the growth in its community colleges. Furthermore, the reporting procedures showed a leveling off of full-time students but a tremendous increase in part-time student enrollment. Two States, Louisiana and Washington, reported common constraints to growth of enrollment -- facilities were used to capacity and there were waiting lists for enrolling. Apparently, the reporting procedures were the key factors in the seeming decline in percentage of enrollment in the low States. In New Jersey (17.32 percent decrease) changes were attributed to new personnel and a new definition of occupational education in the higher education department; vocational education did not collect the data. New Mexico (16.11 percent decrease) counted only first semester enrollments and did not allow for second semester changes.

Growth of post-secondary vocational education depends in a great measure upon the State's educational organization. A variety of new forms of post-secondary education have emerged in addition to community colleges. Area schools, joint county schools and several other arrangements have evolved as the States have moved to provide post-secondary vocational education services to the youth and adults of the States. Enthusiasm for post-secondary education is high among the States, and it seems safe to predict that this high growth rate will continue.

Table 122 - Percent of Change in Numbers of Persons Enrolled in Post-Secondary Vocational Education, 1970-71 to 1971-72

States	Numbers of Persons Enrolled in Post-Secondary Vocational Education		Percent of Change in Post-Secondary Vocational Enrollment
	1970-71	1971-72	
U.S. TOTAL	1,140,250	1,303,052	14.28
Alabama	17,041	19,853	16.50
Alaska	806	2,814	249.13
Arizona	22,281	38,318	71.98
Arkansas	6,324	6,240	-1.33
California	338,564	329,635	-2.64
Colorado	14,274	14,964	4.83
Connecticut	6,674	6,977	4.54
Delaware	718	1,249	73.96
Dist. of C.	1,144	1,653	44.49
Florida	69,634	75,173	7.95
Georgia	14,814	26,262	77.28
Hawaii	7,052	10,107	43.32
Idaho	2,820	3,255	15.43
Illinois	62,186	89,168	43.39
Indiana	6,213	7,529	21.18
Iowa	13,584	15,996	17.76
Kansas	7,393	9,283	25.56
Kentucky	9,308	12,844	37.99
Louisiana	19,076	19,375	1.57
Maine	1,628	2,065	26.84
Maryland	12,758	19,522	53.02
Massachusetts	8,711	13,019	49.45
Michigan	42,632	63,216	48.28
Minnesota	20,122	21,130	5.01
Mississippi	8,268	8,812	6.58
Missouri	11,797	14,282	21.06
Montana	3,218	4,125	28.19
Nebraska	5,362	7,180	33.91
Nevada	1,936	2,050	5.89
New Hampshire	1,820	2,011	10.49
New Jersey	20,530	16,974	-17.32
New Mexico	6,078	5,099	-16.11
New York	58,965	62,883	6.64
N. Carolina	42,536	46,421	9.13
N. Dakota	4,117	4,307	4.62
Ohio	13,911	20,186	45.11
Oklahoma	5,322	5,832	9.58
Oregon	15,243	22,444	47.24
Pennsylvania	27,381	29,844	9.00
Rhode Island	1,081	1,058	-2.13
S. Carolina	3,200	7,463	133.22
S. Dakota	1,806	2,002	10.85
Tennessee	16,346	17,773	8.73
Texas	41,912	52,508	25.28
Utah	12,294	13,059	6.22
Vermont	173	212	22.54
Virginia	15,833	18,807	18.78
Washington	58,233	58,701	.80
W. Virginia	2,014	2,685	33.32
Wisconsin	38,136	48,990	28.46
Wyoming	1,436	1,617	12.60
Puerto Rico	15,545	16,080	3.44

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Adult vocational education. The adult vocational education program is the second of the old established programs. Many changes have occurred from the early days of providing vocational education for employed adults to the present practice of providing vocational education for all adults. Adult vocational education has traditionally been a large part of the total program of vocational education; adult programs now amount to about one-third of the total. Adult enrollments may be expected to continue to increase so long as adults seek to increase their employment skills, train for new positions, or enter the labor force for the first time. The increases will become more marked as adults take a more active role in assessing the viability of their career pursuits. As our technology changes, occupations change. Adult learners can anticipate changes in the world of work which would adversely affect them. By gaining new occupational skills through vocational education, these adults need never feel the frustration of unemployment or lack of job mobility, and they can upgrade their job competencies or shift career lines.

An increase in the number of adults enrolled in vocational education was reported by thirty-seven States and Puerto Rico. Thirteen States and the District of Columbia reported a decline in enrollment; see Table 123.

Between FY 1971 and FY 1972, the percent of change in the enrollment of adults in vocational education ranged nationally from an increase of 105.99 percent (Maine) to a decrease of 40.97 percent (Illinois). The average percent of change was 7.59 percent; Alabama was nearest the mean with an 8.33 percent increase.

Maine had undertaken construction of facilities and appeared to be successful in attracting adults to the facilities, inasmuch as the enrollment had more than doubled. Kansas did not allocate money for adult education, and the enrollment did not grow; it declined slightly. Indiana also showed little percent of change in enrollment; however, the over-all enrollment did increase in numbers. In explaining the highest decrease in adult enrollment, Illinois said its community college board was emphasizing credit courses. Many persons previously counted as adults were counted as part-time post-secondary.

In America, economic and social stability are substantially based on a competent, fully employed, adult work force. Vocational education is a major fashioner of this work force. Attention to the continuing education of adults, particularly that education which is related to the ability of adults to produce the goods and services the Nation needs, should become a high priority item in each State. Almost without notice the attention of the Nation is focusing upon the vocational education of adults with as much vigor as is being placed on the necessity to improve reading and writing in the elementary schools.

Table 123 - Percent of Change in Numbers of Persons Enrolled in Adult Vocational Education, 1970-71 to 1971-72

States	Numbers of Persons Enrolled in Adult Vocational Education		Percent of Change in Adult Vocational Education
	1970-71	1971-72	
U.S. TOTAL	2,847,996	3,064,030	7.59
Alabama	41,118	44,543	8.33
Alaska	3,847	6,258	62.67
Arizona	15,880	14,209	-10.52
Arkansas	43,587	42,292	-2.97
California	325,573	311,663	-4.27
Colorado	35,037	34,514	-1.49
Connecticut	28,829	24,830	-13.87
Delaware	3,054	4,025	31.79
Dist. of C.	4,183	3,454	-17.43
Florida	167,437	176,495	5.41
Georgia	83,244	101,120	21.47
Hawaii	8,600	11,100	29.07
Idaho	5,706	7,514	31.69
Illinois	46,775	27,612	-40.97
Indiana	38,646	45,521	17.79
Iowa	64,116	65,052	1.46
Kansas	47,290	46,723	-1.20
Kentucky	48,144	52,856	9.79
Louisiana	29,046	30,753	5.88
Maine	5,338	10,996	105.99
Maryland	28,348	34,809	22.79
Massachusetts	17,828	29,096	63.20
Michigan	113,189	97,584	-13.79
Minnesota	94,126	103,118	9.55
Mississippi	38,771	42,930	10.73
Missouri	33,288	36,176	8.68
Montana	7,403	8,726	17.87
Nebraska	21,620	25,564	18.24
Nevada	3,578	4,098	14.53
New Hampshire	2,884	5,378	86.48
New Jersey	90,510	92,773	2.50
New Mexico	7,795	7,201	-7.62
New York	165,146	208,321	26.14
N. Carolina	172,584	209,221	21.23
N. Dakota	5,628	8,263	46.82
Ohio	193,196	195,988	1.45
Oklahoma	38,045	40,145	5.52
Oregon	30,825	37,331	21.11
Pennsylvania	125,835	108,541	-13.74
Rhode Island	5,263	5,684	8.00
S. Carolina	19,761	18,272	-7.54
S. Dakota	5,276	4,831	-8.43
Tennessee	31,754	38,493	21.22
Texas	229,213	265,484	15.82
Utah	17,558	25,270	43.92
Vermont	2,819	4,549	61.37
Virginia	97,397	123,352	26.65
Washington	56,204	66,334	18.02
W. Virginia	24,024	22,293	-7,21
Wisconsin	92,484	101,227	9.45
Wyoming	962	988	2.70
Puerto Rico	29,232	30,460	4.20

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

CHANGE IN THE INTERNAL BALANCE OF VOCATIONAL EDUCATION

The five tables and narrative statements which follow characterize the changes in the internal balance of the enrollment in vocational education. Not immediately obvious is the difference in the following data and the preceding data. The preceding data depicted percentage growth in numbers enrolled; the following data depict shifts in the percentages to which the enrollment at each level is a part of the total enrollment.

The significance of the difference in the two sets of tables is basically this: a given level of vocational education, for example secondary, can show a substantial gain in numbers enrolled. Yet, if one of the other levels, such as post-secondary, shows a much higher gain in numbers enrolled, the secondary vocational education may show an actual decrease in the percent to which secondary enrollment comprises total enrollment. This is a statistical loss, not a loss in numbers enrolled. Of course, a similar statistical gain can occur.

This is, in fact, what occurred. Secondary vocational education had a 9.05 percent increase in numbers enrolled. Yet when secondary enrollment is considered in a context in which post-secondary enrollment increased 14.28 percent, and over-all enrollment increased 9.25 percent -- secondary vocational education enrollment declined by 0.1 percent as a part of total enrollment. (Secondary, post-secondary, and adult combined.) This small shift is probably the result of high emphasis on post-secondary enrollments.

A lack of the Fiscal year 1972 cooperative education enrollment figures from eight States presents a somewhat distorted view. It is to be hoped that if figures were available from all States this program would show an increase; see Table 125 and the narrative.

Secondary vocational education, Table 124. Twenty-eight States and Puerto Rico reported a decreased percentage of total vocational education enrollment which is enrolled in secondary vocational education. Twenty-one States and the District of Columbia reported an increased percentage of the total enrollment of vocational education in secondary schools. One State showed no change (Iowa).

The change in the percent of total vocational education enrollment in secondary schools ranged from an increase of 10.3 percentage points (Wisconsin) to a decrease of 14.1 percentage points (Maine). The average change was 0.1 percentage points decrease (Indiana).

Wisconsin reported that it adopted a new definition of vocational education and achieved more accurate reporting which contributed to substan[illegible] increases in its enrollment figures.

Table 124 - Change in Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Percent of Total Vocational Enrollment in Secondary Vocational Education		Difference in Percentage Points of Secondary Vocational Education
	1970-71	1971-72	
U.S. TOTAL	56.4	56.3	-.1
Alabama	60.5	59.2	-1.3
Alaska	64.6	56.7	-7.9
Arizona	56.9	48.9	-8.0
Arkansas	52.0	56.0	4.0
California	44.9	47.5	2.6
Colorado	48.3	51.3	3.0
Connecticut	68.8	75.1	6.3
Delaware	87.9	85.9	-2.0
Dist. of C.	51.6	52.8	1.2
Florida	45.9	50.8	4.9
Georgia	61.7	56.0	-5.7
Hawaii	59.5	47.2	-12.3
Idaho	71.9	67.5	-4.4
Illinois	79.9	80.4	.5
Indiana	65.8	65.7	-.1
Iowa	39.3	39.3	0.0
Kansas	41.3	43.3	2.0
Kentucky	60.5	60.2	-.3
Louisiana	72.4	71.6	-.8
Maine	70.3	56.2	-14.1
Maryland	71.0	67.3	-3.7
Massachusetts	78.2	74.3	-3.9
Michigan	51.3	53.1	1.8
Minnesota	47.9	47.0	.9
Mississippi	53.8	52.8	-1.0
Missouri	68.6	69.0	.4
Montana	61.1	60.2	-.9
Nebraska	58.7	52.4	-6.3
Nevada	69.6	70.2	.6
New Hampshire	79.6	70.8	-8.8
New Jersey	62.0	64.6	2.6
New Mexico	71.8	76.5	4.7
New York	66.5	64.1	-2.4
N. Carolina	42.9	40.6	-2.3
N. Dakota	62.8	61.5	-1.3
Ohio	46.8	47.5	.7
Oklahoma	58.4	57.2	-1.2
Oregon	54.4	51.8	-2.6
Pennsylvania	54.6	57.7	3.1
Rhode Island	65.5	66.3	.8
S. Carolina	75.5	74.7	-.8
S. Dakota	66.9	69.3	2.4
Tennessee	66.5	62.8	-3.7
Texas	53.1	49.0	-4.1
Utah	68.6	62.0	-6.6
Vermont	76.2	71.8	-4.4
Virginia	53.4	47.3	-6.1
Washington	49.4	50.2	.8
W. Virginia	56.0	60.6	4.6
Wisconsin	30.4	40.7	10.3
Wyoming	83.2	85.3	2.1
Puerto Rico	59.2	51.9	-7.3

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Secondary cooperative vocational education, Table 125. Within secondary vocational education there was a general decrease in participation in cooperative education. However, data were not available from eight States. Twenty-four States reported an increase in the percent of secondary vocational education students participating in cooperative education. Seventeen States, the District of Columbia, and Puerto Rico reported a declined percentage of participation. One State showed no change (New York).

The State with the greatest enrollment increase in cooperative education for secondary vocational education was Nebraska (10.9 percentage points); the State with the greatest percentage decrease was Alaska (20.1 percentage points). The average change was 2.4 percentage points decrease (Oklahoma 2.5 percentage points).

Nebraska reported that the availability of funds for cooperative education, combined with greater State department efforts, created more interest among local education agencies. Although Alaska had the greatest decline, the percent of secondary vocational education students enrolled in cooperative vocational education there still remained the nation's highest, 48.9 percent.

NOTE: For a variety of reasons it is imperative that increased attention be given to cooperative vocational education, both secondary and post-secondary. This is the area of education that is more directly linked to the business, health, industrial, and agricultural world of work. The program is thoroughly understood by representatives of business, health, industry, and agriculture; it is strongly supported by them. Cooperative vocational education also represents a methodology by which the school can become involved in the community at large. Traditionally, the cooperative vocational education program has had a high rate of placement and retention of students in the work for which they were trained.

Secondary vocational education work study, Table 126. Within secondary vocational education there was no change in participation in the work study program nationally. Twenty-six States and the District of Columbia reported an increased percentage of participation by students. Twenty States and Puerto Rico reported decreased percentages of vocational student enrollment in work study. Four States reported no change in participation.

Massachusetts had the greatest rise in participation with a 6.7 percentage point increase. Rhode Island had the greatest loss in participation with a 1.42 percentage point decrease.

With the continued emphasis on providing special programs and services for disadvantaged students, the work study program would seem an excellent opportunity to meet their needs. There seems a disparity between the numbers enrolled in work study and the much larger number of disadvantaged persons.

Table 125 - Change in Percent of Secondary Vocational Education Students Enrolled in Secondary Cooperative Vocational Education, 1970-71 to 1971-72

States	Percent of Secondary Vocational Students Enrolled in Secondary Cooperative Vocational Education		Difference in Percentage Points of Secondary Cooperative Vocational Education
	1970-71	1971-72	
U.S. TOTAL	10.7	8.3	-2.4
Alabama	11.5	17.3	5.8
Alaska	69.0	48.9	-20.1
Arizona	16.0	21.8	5.8
Arkansas	15.5	10.3	-5.2
California	4.7	1.7	-3.0
Colorado	11.3	2.3	-9.0
Connecticut	5.3	8.6	3.3
Delaware	3.8	9.2	5.4
Dist. of C.	25.4	11.1	-14.3
Florida	18.2	19.9	1.7
Georgia	9.4	NA	NA
Hawaii	5.0	3.4	-1.6
Idaho	12.2	11.8	-.4
Illinois	4.5	NA	NA
Indiana	28.9	20.3	-8.6
Iowa	25.1	NA	NA
Kansas	9.6	11.3	1.7
Kentucky	6.1	NA	NA
Louisiana	6.3	8.3	2.0
Maine	4.4	6.9	2.5
Maryland	5.2	7.0	1.8
Massachusetts	2.9	2.8	-.1
Michigan	21.8	25.4	3.6
Minnesota	22.0	22.2	.2
Mississippi	8.2	8.6	.4
Missouri	14.0	NA	NA
Montana	9.0	7.5	-1.5
Nebraska	9.1	20.0	10.9
Nevada	12.1	9.1	-3.0
New Hampshire	2.9	4.9	2.0
New Jersey	8.8	5.6	-3.2
New Mexico	15.0	14.2	-.8
New York	4.8	4.8	0.0
N. Carolina	23.2	19.0	-4.2
N. Dakota	19.2	23.6	4.4
Ohio	28.8	NA	NA
Oklahoma	23.8	21.3	-2.5
Oregon	16.5	15.5	-1.0
Pennsylvania	5.1	7.1	2.0
Rhode Island	16.7	22.8	6.1
S. Carolina	6.0	9.3	3.3
S. Dakota	17.8	24.4	6.6
Tennessee	13.0	7.4	-5.6
Texas	24.4	32.8	8.4
Utah	3.4	NA	NA
Vermont	9.8	11.1	1.3
Virginia	16.3	21.0	4.7
Washington	8.5	6.8	-1.7
W. Virginia	3.9	4.4	.5
Wisconsin	5.4	NA	NA
Wyoming	11.1	13.7	2.6
Puerto Rico	17.7	8.5	-9.2

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 126 - Change in Percent of Secondary Vocational Education Students Enrolled in Vocational Education Work Study, 1970-71 to 1971-72

States	Percent of Secondary Vocational Students Enrolled in Vocational Education Work Study		Difference in Percentage Points of Vocational Education Work Study
	1970-71	1971-72	
U.S. TOTAL	.43	.43	0.00
Alabama	.39	.71	.32
Alaska	1.65	.51	-1.14
Arizona	.09	.67	.58
Arkansas	.70	.58	-.12
California	.26	.22	-.04
Colorado	.36	.88	.52
Connecticut	.32	.41	.09
Delaware	.58	.63	.05
Dist. of C.	1.81	2.19	.38
Florida	.78	.48	-.30
Georgia	.30	.71	.41
Hawaii	1.75	2.18	.43
Idaho	.15	.31	.16
Illinois	.19	.13	-.06
Indiana	.33	.30	-.03
Iowa	.18	.27	.09
Kansas	.98	.43	-.55
Kentucky	.69	.79	.10
Louisiana	.21	.19	-.02
Maine	0.00	0.00	0.00
Maryland	.41	.31	-.10
Massachusetts	.61	1.28	.67
Michigan	.82	.74	-.08
Minnesota	0.00	0.00	0.00
Mississippi	.73	.53	-.20
Missouri	.49	.59	.10
Montana	.38	.41	.03
Nebraska	.35	.40	.05
Nevada	.43	.52	.09
New Hampshire	.36	.56	.20
New Jersey	.96	1.00	.04
New Mexico	.59	.55	-.04
New York	.29	.31	.02
N. Carolina	.22	.22	0.00
N. Dakota	.39	.42	.03
Ohio	.50	.48	-.02
Oklahoma	.75	.70	-.05
Oregon	.19	.26	.07
Pennsylvania	.56	.65	.09
Rhode Island	1.86	.44	-1.42
S. Carolina	.46	.64	.18
S. Dakota	.47	.63	.16
Tennessee	1.39	.72	-.67
Texas	.15	.31	.16
Utah	.37	.17	-.20
Vermont	1.08	1.04	-.04
Virginia	.47	.60	.13
Washington	.21	.17	-.04
W. Virginia	.66	.58	-.08
Wisconsin	0.00	0.00	0.00
Wyoming	.27	.32	.05
Puerto Rico	1.23	0.00	-1.23

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Post-secondary vocational education, Table 127. Thirty-one States, the District of Columbia, and Puerto Rico reported that the percent of total enrollment found in post-secondary education was greater in FY 1972 than in FY 1971. Nineteen States reported a decline in post-secondary enrollment as a percent of total vocational education enrollment.

The range of change was from an increase of 12.2 percentage points (Arizona) to a decrease of 2.6 percentage points (New Mexico). The average change was 0.6 percentage points (Idaho, Missouri, and South Dakota).

West Virginia reported that there was a strong State emphasis on post-secondary education. In that State, a Board of Regents is responsible for post-secondary education; a good reporting procedure by the Board resulted in an accurate higher enrollment count.

Table 127 - Change in Post-Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Percent of Total Vocational Enrollment in Post-Secondary Vocational Education		Difference in Percentage Points of Post-Secondary Vocational Education Enrollment
	1970-71	1971-72	
U.S. TOTAL	12.5	13.1	.6
Alabama	11.6	12.6	1.0
Alaska	6.1	13.5	7.4
Arizona	25.1	37.3	12.2
Arkansas	6.1	5.7	-.4
California	28.1	27.0	-1.1
Colorado	14.9	14.7	-.2
Connecticut	5.9	5.5	-.4
Delaware	2.3	3.4	1.1
Dist. of C.	10.3	15.3	5.0
Florida	15.9	14.7	-1.2
Georgia	5.8	9.1	3.3
Hawaii	18.2	25.2	7.0
Idaho	9.2	9.8	.6
Illinois	11.4	15.0	3.6
Indiana	4.7	4.9	.2
Iowa	10.6	12.0	1.4
Kansas	7.9	9.4	1.5
Kentucky	6.4	7.8	1.4
Louisiana	10.9	11.0	.1
Maine	7.0	6.9	-.1
Maryland	8.9	11.8	2.9
Massachusetts	7.1	8.0	.9
Michigan	13.3	18.4	5.1
Minnesota	9.2	9.0	-.2
Mississippi	8.1	8.0	-.1
Missouri	8.2	8.8	.6
Montana	11.8	12.8	1.0
Nebraska	8.2	10.4	2.2
Nevada	10.7	9.9	-.8
New Hampshire	7.9	8.0	.1
New Jersey	7.0	5.5	-1.5
New Mexico	12.3	9.7	-2.6
New York	8.8	8.3	-.5
N. Carolina	11.3	10.8	-.5
N. Dakota	15.7	13.2	-2.5
Ohio	3.6	4.9	1.3
Oklahoma	5.1	5.4	.3
Oregon	15.1	18.1	3.0
Pennsylvania	8.1	9.1	1.0
Rhode Island	5.9	5.3	-.6
S. Carolina	3.4	7.3	3.9
S. Dakota	8.4	9.0	.6
Tennessee	11.4	11.8	.4
Texas	7.2	8.4	1.2
Utah	12.9	13.0	.1
Vermont	1.4	1.3	-.1
Virginia	6.5	7.0	.5
Washington	25.8	23.4	-2.4
W. Virginia	3.4	4.2	.8
Wisconsin	20.3	19.3	-1.0
Wyoming	10.1	9.1	-1.0
Puerto Rico	14.2	16.6	2.4

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Adult vocational education enrollment, Table 128. The figures on enrollment of adults in vocational education as a percent of total enrollment in vocational education were very mixed. While twenty-five States and Puerto Rico showed the adult enrollment as an increased portion of the total enrollment, twenty-five States and the District of Columbia showed decreases.

The range was from an increase of 14.1 percentage points for Maine to a decrease of 9.4 percentage points for Wisconsin. The average change was a 0.5 percentage point decrease.

Table 128 - Change in Adult Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Percent of Adults in Vocational Education		Difference of Percentage Points in Adult Vocational Education Enrollment
	1970-71	1971-72	
U.S. TOTAL	31.2	30.7	-.5
Alabama	27.9	28.2	.3
Alaska	29.3	29.9	.6
Arizona	17.9	13.8	-4.1
Arkansas	41.9	38.4	-3.5
California	27.0	25.5	-1.5
Colorado	36.8	34.0	-2.8
Connecticut	25.4	19.5	-5.9
Delaware	9.8	10.8	1.0
Dist. of C.	38.0	31.9	-6.1
Florida	38.2	34.5	-3.7
Georgia	32.5	34.9	2.4
Hawaii	22.2	27.7	5.5
Idaho	18.8	22.7	3.9
Illinois	8.6	4.6	-4.0
Indiana	29.4	29.5	.1
Iowa	50.1	48.8	-1.3
Kansas	50.8	47.3	-3.5
Kentucky	33.1	32.1	-1.0
Louisiana	16.7	17.4	.7
Maine	22.8	36.9	14.1
Maryland	20.0	21.0	1.0
Massachusetts	14.6	17.8	3.2
Michigan	35.4	28.5	-6.9
Minnesota	43.0	44.0	1.0
Mississippi	38.1	39.2	1.1
Missouri	23.2	22.2	-1.0
Montana	27.1	27.0	-.1
Nebraska	33.1	37.2	4.1
Nevada	20.0	19.9	-.1
New Hampshire	12.5	21.3	8.8
New Jersey	30.9	29.9	-1.0
New Mexico	15.9	13.8	-2.1
New York	24.7	27.6	2.9
N. Carolina	45.8	48.6	2.8
N. Dakota	21.5	25.3	3.8
Ohio	49.7	47.6	-2.1
Oklahoma	36.5	37.4	.9
Oregon	30.5	30.1	-.4
Pennsylvania	37.2	33.2	-4.0
Rhode Island	28.6	28.4	-.2
S. Carolina	21.1	18.0	-3.1
S. Dakota	24.6	21.7	-2.9
Tennessee	22.1	25.5	3.4
Texas	39.7	42.6	2.9
Utah	18.5	25.1	6.6
Vermont	22.4	26.9	4.5
Virginia	40.1	45.7	5.6
Washington	24.9	26.5	1.6
W. Virginia	40.6	35.2	-5.4
Wisconsin	49.3	39.9	-9.4
Wyoming	6.8	5.6	-1.2
Puerto Rico	26.6	31.5	4.9

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

CHANGE RELATED TO POPULATION

Comparisons of enrollments among States is difficult without using some common base. In Table 129, the enrollment in vocational education for each State is compared with the total population of that State in increments of 1,000 population. The result is the number of persons enrolled in vocational education for each 1,000 persons in the general population. With a common base having been established, numerous questions can be asked and relationships can be assumed.

Questions would include the following: With growth in both the general population and vocational education enrollments, is vocational education reaching a larger portion of the population? What happened in the eight States which reported the highest growth rates -- increases of more than ten persons per 1,000 population? How is it that increases in Georgia (7.4) and Florida (10.9) are more than twice those of their neighboring States of South Carolina (3.1), Tennessee (2.0), Alabama (3.1), and Mississippi (3.5)?

Tables 130 through 132 compare enrollments in vocational education at the secondary, post-secondary, and adult levels to their approximate age groups. The word approximate is used because the population figures used are from the Bureau of the Census, which used age brackets of 15-19, 20-24, and 25-64. Further subdivision of these age brackets is not possible at present. Actually, the exact match of the age brackets is not essential. If we assume that the age distributions are nearly the same in all States, then we have a common base. And the use of the common base permits examination of the relationships between the performances of the various States.

Vocational education enrollment per 1,000 population, Table 129. Growth in the vocational education enrollment per 1,000 population was reported by forty-nine States. One State and the District of Columbia reported a loss in enrollment per 1,000 population. Population figures based on the 1970 Census were not available in time for use in 1971 for Puerto Rico. Changes ranged from an increase of 25.9 persons (Alaska) to a decrease of 0.9 persons (Pennsylvania). The average change was an increase of 4.1 persons (Missouri and Texas).

Secondary vocational education enrollment, age group 15-19 years, Table 130. Secondary vocational education enrollment as a percent of population age 15-19 changed less dramatically. The average change was an increase of 2.9 percentage points (West Virginia, 3.0). The range was from an increase of 12.6 percentage points (Alaska) to a decrease of 5.7 percentage points (Hawaii). The data suggest the possibility that some States may be de-emphasizing secondary level vocational education. This point needs to be explored particularly because of the large number of students who complete high school without developing vocational competency and who do not continue their education for any purpose.

Table 129 - Change in the Vocational Education Enrollment per 1,000 Population, 1970-71 to 1971-72

States	Vocational Education Enrollment per 1,000 Population		Difference in the Enrollment per 1,000 Population
	1970-71	1971-72	
U.S. TOTAL	44.43	48.49	4.1
Alabama	42.74	45.80	3.1
Alaska	43.77	69.66	25.9
Arizona	49.89	57.97	8.1
Arkansas	54.03	57.31	3.3
California	60.37	61.22	.9
Colorado	43.18	45.99	2.8
Connecticut	37.50	42.09	4.6
Delaware	56.94	68.09	11.2
Dist. of C.	14.55	14.29	-.3
Florida	64.52	75.37	10.9
Georgia	55.75	63.13	7.4
Hawaii	50.26	52.23	2.0
Idaho	42.62	46.52	3.9
Illinois	48.69	53.62	4.9
Indiana	25.29	29.76	4.5
Iowa	45.29	47.25	2.0
Kansas	41.46	43.99	2.5
Kentucky	45.15	51.22	6.1
Louisiana	47.89	48.42	.5
Maine	23.61	30.08	6.5
Maryland	36.14	42.33	6.2
Massachusetts	21.44	28.79	7.4
Michigan	36.06	38.65	2.6
Minnesota	57.58	61.59	4.0
Mississippi	45.91	49.42	3.5
Missouri	30.71	34.77	4.1
Montana	39.35	46.47	7.1
Nebraska	44.03	46.37	2.3
Nevada	37.05	42.18	5.1
New Hampshire	31.29	34.31	3.0
New Jersey	40.81	43.27	2.5
New Mexico	48.40	51.51	3.1
New York	36.71	41.37	4.7
N. Carolina	74.15	84.73	10.6
N. Dakota	42.44	52.83	10.4
Ohio	36.52	38.68	2.2
Oklahoma	40.72	41.96	1.2
Oregon	48.34	59.26	10.9
Pennsylvania	28.64	27.77	-.9
Rhode Island	19.40	21.12	1.7
S. Carolina	36.14	39.23	3.1
S. Dakota	32.18	33.49	1.3
Tennessee	36.59	38.54	2.0
Texas	51.59	55.66	4.1
Utah	89.67	95.23	5.6
Vermont	28.34	38.04	9.7
Virginia	52.27	58.04	5.8
Washington	66.33	73.57	7.2
W. Virginia	33.94	36.30	2.4
Wisconsin	42.47	57.38	14.9
Wyoming	42.86	53.23	10.4
Puerto Rico		35.70	

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 130 - Change in Secondary Vocational Education Enrollment as a Percent of Population 15-19 Years of Age, 1970-71 to 1971-72

States	Secondary Vocational Enrollment as a Percent of Population 15-19 Years of Age		Difference in Percentage Points of Secondary Vocational Education Enrollment as a Percent of Population 15-19 Years of Age
	1970-71	1971-72	
U.S. TOTAL	26.3	29.2	2.9
Alabama	26.1	27.3	1.2
Alaska	31.7	44.3	12.6
Arizona	24.0	29.0	5.0
Arkansas	29.6	33.9	4.3
California	29.7	31.9	2.2
Colorado	21.2	23.9	2.7
Connecticut	29.6	36.3	6.7
Delaware	53.5	62.4	8.9
Dist. of C.	8.7	8.7	0.0
Florida	34.9	45.1	10.2
Georgia	35.7	36.7	1.0
Hawaii	32.1	26.4	-5.7
Idaho	29.5	30.2	.7
Illinois	42.7	47.4	4.7
Indiana	15.8	20.2	4.4
Iowa	18.4	19.2	.8
Kansas	17.7	19.7	2.0
Kentucky	27.6	31.1	3.5
Louisiana	33.6	33.6	0.0
Maine	71.6	18.0	.4
Maryland	28.3	31.4	3.1
Massachusetts	17.2	23.7	6.5
Michigan	18.8	20.9	2.1
Minnesota	28.1	29.5	1.4
Mississippi	23.5	24.8	1.3
Missouri	22.9	26.1	3.2
Montana	23.7	27.6	3.9
Nebraska	26.8	25.2	-1.6
Nevada	31.3	36.0	4.7
New Hampshire	27.3	26.6	-.7
New Jersey	29.7	32.8	3.1
New Mexico	33.6	38.1	4.5
New York	28.5	30.9	2.4
N. Carolina	31.1	33.7	2.6
N. Dakota	23.4	31.0	7.6
Ohio	18.0	19.4	1.4
Oklahoma	25.2	25.4	.2
Oregon	24.0	31.6	7.6
Pennsylvania	15.8	17.6	1.8
Rhode Island	14.0	15.5	1.5
S. Carolina	25.0	27.0	2.0
S. Dakota	20.5	22.1	1.6
Tennessee	25.3	25.1	-.2
Texas	28.1	27.9	-.2
Utah	55.9	53.6	-2.3
Vermont	21.6	27.4	5.8
Virginia	29.4	29.0	-.4
Washington	33.9	38.1	4.2
W. Virginia	19.2	22.2	3.0
Wisconsin	13.2	23.8	10.6
Wyoming	35.7	45.4	9.7
Puerto Rico			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Post-secondary vocational education enrollment, age group 20-24 years, Table 131. Between FY 1971 and FY 1972, post-secondary vocational education enrollment as a percent of the population age 20-24 increased by 1.2 percentage points. The range of percentage point change was from an increase of 10.9 (Arizona) to a decrease of 1.2 (New Mexico). Delaware and Iowa fell at the mean, an increase of 1.2 percentage points. Forty-five States and the District of Columbia reported increases; four States reported decreases. One State showed no change; and Puerto Rico was not available.

As previously noted, Arizona reported much growth in the community colleges, particularly the part-time enrollment; in addition, reporting was improved.

Table 131 - Change in Post-Secondary Vocational Education Enrollment as a Percent of Population 20-24 Years of Age, 1970-71 to 1971-72

States	Post-Secondary Vocational Enrollment as a Percent of Population 20-24 Years of Age		Difference in Percentage Points of Post-Secondary Vocational Education Enrollment as a Percent of Population 20-24 Years of Age
	1970-71	1971-72	
U.S. TOTAL	6.70	7.86	1.2
Alabama	6.21	7.23	1.0
Alaska	2.27	7.91	5.6
Arizona	15.18	26.11	10.9
Arkansas	4.42	4.36	-.1
California	19.45	18.93	-.5
Colorado	6.98	7.32	.3
Connecticut	2.90	3.04	.1
Delaware	1.64	2.85	1.2
Dist. of C.	1.44	2.08	.6
Florida	14.02	15.14	1.1
Georgia	3.55	6.30	2.8
Hawaii	8.65	12.39	3.7
Idaho	5.29	6.10	.8
Illinois	7.37	10.57	3.2
Indiana	1.24	1.82	.6
Iowa	6.67	7.85	1.2
Kansas	3.92	4.93	1.0
Kentucky	3.51	4.84	1.3
Louisiana	6.37	6.47	.1
Maine	2.17	2.75	.6
Maryland	3.92	6.00	2.1
Massachusetts	1.69	2.80	1.1
Michigan	6.07	9.00	2.9
Minnesota	6.89	7.24	.4
Mississippi	4.77	5.08	.3
Missouri	3.33	4.03	.7
Montana	6.25	8.01	1.8
Nebraska	4.68	6.26	1.6
Nevada	4.95	5.25	.3
New Hampshire	3.11	3.44	.3
New Jersey	4.03	3.33	-.7
New Mexico	7.35	6.17	-1.2
New York	4.27	4.55	.3
N. Carolina	9.17	10.00	.8
N. Dakota	6.36	8.83	2.5
Ohio	1.67	2.42	.8
Oklahoma	2.57	2.81	.2
Oregon	9.37	13.80	4.4
Pennsylvania	2.55	3.50	1.0
Rhode Island	1.23	1.20	0.0
S. Carolina	1.14	3.13	2.0
S. Dakota	3.71	4.12	.4
Tennessee	5.09	5.53	.4
Texas	4.37	5.48	1.1
Utah	12.56	13.34	.8
Vermont	.48	.59	.1
Virginia	3.60	4.28	.7
Washington	19.68	19.83	.2
W. Virginia	1.57	2.09	.5
Wisconsin	11.31	14.53	3.2
Wyoming	5.79	6.52	.7
Puerto Rico			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Adult vocational education enrollment, age group 25-64 years, Table 132. For FY 1972, enrollment in adult vocational education increased slightly over FY 1971 as a percent of the population age 25-64. The range was from an increase of 1.9 percentage points (Alaska, Utah) to a decrease of 0.4 percentage points (Michigan); the mean was an increase of 0.3 percentage points (Indiana, Kentucky, Nevada, and Tennessee). Thirty-six States showed increased percentages of adult enrollment; nine States and the District of Columbia showed decreased percentages; five States showed no change; and Puerto Rico was not available.

Utah suggested that local education agencies were exercising their option to serve more adults.

Table 132 - Change in Adult Vocational Education Enrollment as a Percent of Population 25-64 Years of Age, 1970-71 to 1971-72

States	Adult Vocational Enrollment as a Percent of Population 25-64 Years of Age		Difference in Percentage Points of Adult Vocational Education Enrollment as a Percent of Population 25-64 Years of Age
	1970-71	1971-72	
U.S. TOTAL	3.1	3.4	.3
Alabama	2.8	3.0	.2
Alaska	3.0	4.9	1.9
Arizona	2.1	1.9	-.2
Arkansas	5.3	5.2	-.1
California	3.4	3.4	0.0
Colorado	3.7	3.6	-.1
Connecticut	2.1	1.8	-.3
Delaware	1.3	1.7	.4
Dist. of C.	1.2	1.0	-.2
Florida	5.5	5.9	.4
Georgia	4.2	5.1	.9
Hawaii	2.5	3.3	.8
Idaho	1.9	2.5	.6
Illinois	.9	.6	-.3
Indiana	1.7	2.0	.3
Iowa	5.5	5.5	0.0
Kansas	4.9	4.9	0.0
Kentucky	3.5	3.8	.3
Louisiana	1.9	2.1	.2
Maine	1.3	2.6	1.3
Maryland	1.6	2.0	.4
Massachusetts	.7	1.2	.5
Michigan	2.9	2.5	-.4
Minnesota	6.0	6.5	.5
Mississippi	4.4	4.8	.4
Missouri	1.6	1.8	.2
Montana	2.5	3.0	.5
Nebraska	3.5	4.1	.6
Nevada	1.5	1.8	.3
New Hampshire	.9	1.7	.8
New Jersey	2.7	2.8	.1
New Mexico	1.9	1.7	-.2
New York	2.0	2.5	.5
N. Carolina	7.7	9.4	1.7
N. Dakota	1.9	3.3	1.4
Ohio	4.1	4.2	.1
Oklahoma	3.4	3.6	.2
Oregon	3.3	4.0	.7
Pennsylvania	2.0	2.0	0.0
Rhode Island	1.3	1.4	.1
S. Carolina	1.5	1.7	.2
S. Dakota	2.0	1.8	-.2
Tennessee	1.9	2.2	.3
Texas	4.8	5.5	.7
Utah	4.2	6.1	1.9
Vermont	1.5	2.5	1.0
Virginia	4.7	5.9	1.2
Washington	3.7	4.4	.7
W. Virginia	3.1	2.9	-.2
Wisconsin	5.0	5.5	.5
Wyoming	.7	.7	0.0
Puerto Rico			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

CHANGE RELATED TO VOCATIONAL EDUCATION SERVICE AREAS

As previously noted, the numbers of persons have increased at all levels of vocational education -- secondary, post-secondary, and adult. But, the enrollment has not increased equally at each level or in each occupational area. Changes may be summarized as follows:

	FY 1971	FY 1972	Numbers Increase	Percentage Point Change
Total	9,160,844	10,053,420	892,576	--
Agriculture	819,880	864,429	44,549	-0.4
Distributive	574,551	634,115	59,564	0.0
Health Occupations	268,963	334,478	65,515	0.4
Consumer & Homemaking	2,450,681	2,581,851	131,170	-1.1
Home Economics (Occup)	192,152	266,333	74,181	0.5
Office Occupations	2,220,499	2,341,366	120,867	-0.9
Technical	312,944	335,661	22,717	-0.1
Trade and Industrial	2,052,750	2,368,281	315,531	1.2
Students Not Identifed by Occupational Area	268,424	326,906	58,482	0.5

Obviously, all occupational areas and the total have grown in enrollment. However, the growth rate of some occupational areas has been less than the total (or average) growth rate; consequently, these occupational areas have declined as a percent of the total. Consumer and homemaking declined the most as a percent of the total, 1.1 percentage points. Trade and industrial education grew the most as a percent of the whole, 1.2 percentage points.

We have reason to expect each occupational area to continue to increase in enrollment. There is no reason to believe that any occupational area is saturating the labor need. By identifying the need, developing the programs, and offering the training, each area can grow markedly. Consider these examples. In the percentage point difference, Ohio increased its agriculture education enrollment more than any other State; it developed new horticulture classes, opened new area programs, and offered additional classes in the cities. Pennsylvania, a highly industrialized State, opened eight new area schools with extensive trade and industrial offerings; Pennsylvania's trade and industrial enrollment, as a percent of the vocational education program, grew by 16.2 percentage points.

Perhaps the most striking observation is the wide variation among the performance levels of the States within each occupational area. Office occupations showed a range of over thirty percentage points between the State with the largest gain and the State with the greatest decrease. Knowledge of the factors contributing to the various gains and losses would seem to be very useful in management of vocational education.

Agriculture education, Table 133. The enrollment in agriculture education decreased slightly -- 0.4 percentage points -- as a percent of enrollment in vocational education. The range of percentage point change, excluding Puerto Rico, was from an increase of 0.7 percentage points (Ohio) to a decrease of 3.7 percentage points (South Carolina). Thirty-two States showed a decline in the percent to which enrollment in agricultural education was a portion of total enrollment in vocational education. Thirteen States, the District of Columbia, and Puerto Rico showed an increase. Five States showed no change.

As the reason for the increase in agricultural education, Ohio reported the opening of new area programs, more courses in large cities, and additional night classes in off-farm occupations such as horticulture. Minnesota said programs in other occupational areas were becoming more available; agricultural education showed no change there in FY 1972. A change in the reporting procedure resulting in a more accurate count was the reason South Carolina gave for its decrease in the extent to which enrollment in agricultural education is a percent of total vocational education.

Distributive education, Table 134. There was no marked change in the percentage of total enrollment in vocational education represented by enrollment in distributive education. While twenty-nine States and the District of Columbia reported increased percentages, and nineteen States and Puerto Rico reported decreases, two States reported no change. The range was from an increase of 3.1 percentage points (North Dakota) to a decrease of 3.6 percentage points (Alaska).

North Dakota said its distributive education program had been without a supervisor for over a year. With the appointment of a new, energetic supervisor, new programs were being developed, particularly in the specialized area of hotel-motel operation. Alaska reported that strong increases in enrollment in other occupational areas offset the increases in distributive education.

Health occupations, Table 135. Thirty-one States, the District of Columbia, and Puerto Rico showed increases in percent of total enrollment in health occupations. Sixteen States showed decreases and three showed no change. The range was from an increase of 3.7 percentage points (Arizona) to a decrease of 2.1 percentage points (Maine and Nevada). The average change was an increase of 0.4 percentage points (California, Connecticut, Mississippi, and South Dakota). The States that showed no change were Hawaii, Kansas, and Minnesota.

Table 133 - Difference in Percentage Points of Enrollment in Agriculture Education as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Agriculture Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	9.0	8.6	-.4
Alabama	29.6	27.5	-2.1
Alaska	0.0	.2	.2
Arizona	4.3	4.2	-.1
Arkansas	20.2	20.7	.5
California	4.0	4.4	.4
Colorado	4.0	4.2	.2
Connecticut	1.7	1.6	-.1
Delaware	4.0	3.3	-.7
Dist. of C.	1.1	1.7	.6
Florida	4.6	5.2	.6
Georgia	14.3	12.9	-1.4
Hawaii	7.0	5.9	-1.1
Idaho	15.6	16.1	.5
Illinois	4.5	5.1	.6
Indiana	15.8	15.8	0.0
Iowa	22.7	22.3	-.4
Kansas	8.9	10.1	-1.2
Kentucky	13.3	11.9	-1.4
Louisiana	11.4	11.0	-.4
Maine	3.8	2.2	-1.6
Maryland	2.0	2.1	.1
Massachusetts	.8	1.3	.5
Michigan	4.5	4.1	.4
Minnesota	14.6	14.6	0.0
Mississippi	21.9	19.6	-2.3
Missouri	11.8	10.9	-.9
Montana	13.1	11.4	-1.7
Nebraska	11.5	12.0	.5
Nevada	4.8	5.1	.3
New Hampshire	5.4	5.2	-.2
New Jersey	.8	.8	0.0
New Mexico	8.6	7.9	-.7
New York	1.6	2.0	.4
N. Carolina	8.2	7.7	-.5
N. Dakota	19.0	17.3	-1.7
Ohio	7.6	8.3	.7
Oklahoma	21.7	20.0	-1.7
Oregon	4.1	4.1	0.0
Pennsylvania	4.2	4.2	0.0
Rhode Island	6.3	6.2	-.1
S. Carolina	24.5	20.8	-3.7
S. Dakota	21.7	20.7	-1.0
Tennessee	15.4	13.8	-1.6
Texas	25.4	23.7	-1.7
Utah	7.3	4.2	-3.1
Vermont	10.4	8.0	-2.4
Virginia	8.5	7.8	-.7
Washington	7.0	6.2	-.8
W. Virginia	7.7	7.5	-.2
Wisconsin	13.1	11.4	-1.7
Wyoming	13.6	10.9	-2.7
Puerto Rico	4.2	5.1	.9

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 134 - Difference in Percentage Points of Enrollment in Distributive Education as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Distributive Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	6.3	6.3	0.0
Alabama	3.7	5.6	1.9
Alaska	15.1	11.5	-3.6
Arizona	10.6	12.3	1.7
Arkansas	6.2	4.9	-1.3
California	5.6	5.8	.2
Colorado	8.9	11.4	2.5
Connecticut	3.1	3.3	.2
Delaware	6.1	6.1	0.0
Dist. of C.	6.9	8.0	1.1
Florida	8.8	9.8	1.0
Georgia	5.7	4.4	-1.3
Hawaii	4.0	4.2	.2
Idaho	3.5	3.8	.3
Illinois	4.3	4.0	-.3
Indiana	3.8	4.3	.5
Iowa	3.8	3.3	-.5
Kansas	9.5	6.8	-2.7
Kentucky	6.7	7.1	.4
Louisiana	5.3	5.8	.5
Maine	3.5	2.3	-1.2
Maryland	3.1	2.9	-.2
Massachusetts	3.3	4.1	.8
Michigan	10.7	11.3	.6
Minnesota	6.7	6.8	.1
Mississippi	4.7	5.9	1.2
Missouri	8.0	8.3	.3
Montana	5.4	5.2	-.2
Nebraska	6.7	7.0	.3
Nevada	3.5	3.5	0.0
New Hampshire	1.2	1.7	.5
New Jersey	3.7	3.5	-.2
New Mexico	3.6	3.5	-.1
New York	5.6	3.8	-1.8
N. Carolina	4.4	4.3	-.1
N. Dakota	3.6	6.7	3.1
Ohio	10.1	10.7	.6
Oklahoma	4.6	5.0	.4
Oregon	5.6	4.7	-.9
Pennsylvania	3.4	3.6	.2
Rhode Island	4.7	4.4	-.3
S. Carolina	4.3	4.8	.5
S. Dakota	5.0	6.6	1.6
Tennessee	7.0	5.2	-1.8
Texas	6.9	6.5	-.4
Utah	6.9	6.3	-.6
Vermont	4.1	4.4	.3
Virginia	17.9	19.5	1.6
Washington	4.9	6.6	1.7
W. Virginia	1.3	1.8	.5
Wisconsin	4.9	5.6	.7
Wyoming	5.6	4.7	-.9
Puerto Rico	14.6	11.4	-3.2

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 135 - Difference in Percentage Points of Enrollment in Health Occupations as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Health Occupations Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	2.9	3.3	.4
Alabama	2.0	1.8	-.2
Alaska	1.0	1.9	.9
Arizona	4.1	7.8	3.7
Arkansas	1.[illegible]	2.7	.8
California	[illegible]	3.5	.4
Colorado	4.1	3.0	-1.1
Connecticu	1.7	2.1	.4
Delaware	1.5	1.7	.2
Dist. of C.	6.6	6.7	.1
Florida	1.9	3.9	2.0
Georgia	2.0	2.2	.2
Hawaii	1.2	1.2	0.0
Idaho	2.3	4.7	2.4
Illinois	2.1	3.0	.9
Indiana	2.0	2.7	.7
Iowa	6.4	8.6	2.2
Kansas	1.4	1.4	0.0
Kentucky	1.7	2.0	.3
Louisiana	1.9	2.6	.7
Maine	3.9	1.8	-2.1
Maryland	1.6	2.3	.7
Massachusetts	2.5	2.7	.2
Michigan	3.1	4.3	1.2
Minnesota	1.9	1.9	0.0
Mississippi	2.0	2.4	.4
Missouri	3.7	4.5	.9
Montana	2.1	1.8	-.3
Nebraska	3.8	7.0	3.2
Nevada	8.9	6.8	-2.1
New Hampshir	2.2	4.2	2.0
New Jersey	2.8	2.5	-.3
New Mexico	2.2	2.9	.7
New York	5.1	4.4	-.7
N. Carolina	5.5	6.5	1.0
N. Dakota	3.7	2.6	-1.1
Ohio	2.2	2.1	-.1
Oklahoma	2.7	3.9	1.2
Oregon	2.8	3.7	.9
Pennsylvania	2.9	3.9	1.0
Rhode Island	5.2	5.0	-.2
S. Carolina	1.5	1.1	-.4
S. Dakota	1.7	2.1	.4
Tennessee	2.7	2.4	-.3
Texas	2.5	2.7	.2
Utah	1.9	1.4	-.5
Vermont	2.0	2.5	.5
Virginia	1.6	1.8	.2
Washington	3.4	2.8	-.6
W. Virginia	1.8	2.6	.8
Wisconsin	4.5	3.8	-.7
Wyoming	1.2	1.1	-.1
Puerto Rico	1.4	1.9	.5

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Arizona reported that they recognized a substantial need in health occupations education and emphasized programs of training to meet these needs. Kansas reported that there was no money available and the programs failed to grow. Presumably, Kansas officials directed available funds to other areas of education. Maine acknowledged the high cost of establishing programs in the health areas and pointed out that the areas had not had appropriate State level supervision.

Consumer and homemaking education, Table 136. There was an over-all decrease in the extent to which enrollment in consumer and homemaking education was a percent of the total enrollment in vocational education. The range (excluding Puerto Rico) was from a decrease of 11.8 percentage points in Arizona to an increase of 6.7 percentage points in New Hampshire. Thirty-five States and Puerto Rico showed a decrease. One State showed no change. Fourteen States and the District of Columbia showed an increase.

New Hampshire suggested that it had been undercounting enrollment in consumer and homemaking education. Its FY 1972 increase resulted from more accurate reporting, not greater enrollment. Arizona also referred to difficulties in counting accurately. Officials suggested that the FY 1972 count was unduplicated and therefore cannot responsibly be compared with the previous year's duplicated count. As previously noted, Pennsylvania's policy was to not emphasize consumer and homemaking as a part of its vocational education. A similar policy, though perhaps not explicit, may be part of the practice of other States. In any event, consumer and homemaking showed the greatest decrease as a percentage of all education areas associated with vocational education.

Table 136 - Difference in Percentage Points of Enrollment in Consumer and Homemaking as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Consumer & Homemaking Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	26.8	25.7	-1.1
Alabama	25.9	24.1	-1.8
Alaska	15.5	10.9	-4.6
Arizona	34.9	23.1	-11.8
Arkansas	35.0	34.7	-.3
California	16.6	16.3	-.3
Colorado	34.6	28.2	-6.4
Connecticut	17.4	21.5	4.1
Delaware	16.9	17.1	.2
Dist. of C.	22.2	26.8	4.6
Florida	33.7	29.6	-4.1
Georgia	25.6	24.2	-1.4
Hawaii	33.6	26.6	-7.0
Idaho	39.7	37.7	-2.0
Illinois	5.9	4.8	-1.1
Indiana	37.7	35.5	-2.2
Iowa	31.0	35.8	4.8
Kansas	23.1	23.4	.3
Kentucky	34.1	30.3	-3.8
Louisiana	30.5	30.9	.4
Maine	10.4	9.4	-1.0
Maryland	28.2	28.0	-.2
Massachusetts	3.9	9.8	5.9
Michigan	25.8	21.8	-4.0
Minnesota	31.6	31.2	-.4
Mississippi	30.0	28.4	-1.6
Missouri	40.5	40.7	.2
Montana	32.1	21.5	-10.6
Nebraska	40.7	31.7	-9.0
Nevada	19.5	13.7	-5.8
New Hampshire	27.4	34.1	6.7
New Jersey	24.8	30.5	5.7
New Mexico	30.8	32.5	1.7
New York	29.3	28.0	-1.3
N. Carolina	28.6	27.3	-1.3
N. Dakota	38.7	36.2	-2.5
Ohio	35.0	33.1	-1.9
Oklahoma	31.1	25.6	-5.5
Oregon	39.2	32.3	-6.9
Pennsylvania	15.4	16.7	1.3
Rhode Island	46.3	45.5	-.8
S. Carolina	31.6	29.8	-1.8
S. Dakota	42.0	41.0	-1.0
Tennessee	33.1	33.3	.2
Texas	39.7	45.1	5.4
Utah	26.1	26.4	.3
Vermont	34.4	32.5	-1.9
Virginia	18.4	16.7	-1.7
Washington	32.9	28.1	-4.8
W. Virginia	34.1	34.1	0.0
Wisconsin	21.3	19.6	-1.7
Wyoming	26.8	24.1	-2.7
Puerto Rico	44.8	31.2	-13.6

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Occupational home economics education, Table 137. For Fiscal year 1972 there was a slight increase in the percent of total enrollment in vocational education represented by enrollment in occupational home economics. Twenty-seven States, the District of Columbia and Puerto Rico showed increases; sixteen States showed decreases; and seven showed no change. The State with the greatest increase in percentage points was Illinois (4.1 percentage points). The greatest decrease (1.7 percentage points) was shown by Maine. The average increase was 0.5 percentage points; California was at that mean.

Several States doubled their percentage points, or nearly so: Colorado (1.7 - 3.7), Florida (2.5 - 4.5), Georgia (2.0 - 3.8), Kansas (0.9 - 2.0), New Hampshire (0.4 - 1.3), Washington (0.9 - 2.6), and Puerto Rico (2.6 - 4.4).

In FY 1972, two States reported enrollments of sufficient size in occupational home economics to result in portions in excess of five percent: Illinois (8.3) and Minnesota (5.5). In FY 1971, the enrollment in occupational home economics in only one State comprised as much as five percent of the total enrollment in vocational education (Minnesota, 5.5).

Illinois reported that its occupational home economics program adopted the name Personal and Public Service Planning in 1970. Implementation of programs in this labor market area required some time, and results are beginning to show as enrollment increases. Idaho showed no change; it reported no big labor demand and no new program starts. Connecticut reported being understaffed in State-level positions in occupational home economics. Maine said changes in data reporting resulted in a lower count; hopefully the new count is more accurate.

Office occupations, Table 138. For FY 1972 there was a decline in the percentage of total enrollment in vocational education represented by enrollment in office occupations. Twenty-seven States and the District of Columbia showed a decline; twenty-one States and Puerto Rico showed an increase; and two States showed no change.

The range was from an increase of 14.8 percentage points in Alaska to a decrease of 16.4 percentage points in Delaware. The mean change was a decrease of 0.9 percentage points (Connecticut).

Alaska reported that the initiation of several new programs accounted for its increased percentage. Over half of all students in vocational education in Alaska were enrolled in office occupations in FY 1972. Washington said its labor demand had stabilized; apparently those completing training in office occupations were filling appropriate numbers of openings in the labor market. Delaware reported that its decreased percentage was the result of a more realistic reporting system.

Table 137 - Difference in Percentage Points of Enrollment in Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Occupational Home Economics Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	2.1	2.6	.5
Alabama	4.6	3.1	-1.5
Alaska	1.8	2.1	.3
Arizona	3.7	4.9	1.2
Arkansas	1.1	.9	-.2
California	2.1	2.6	.5
Colorado	1.7	3.7	2.0
Connecticut	.6	.6	0.0
Delaware	2.5	3.3	.8
Dist. of C.	1.7	2.9	1.2
Florida	2.5	4.5	2.0
Georgia	2.0	3.8	1.8
Hawaii	1.3	1.0	-.3
Idaho	1.1	1.1	0.0
Illinois	4.2	8.3	4.1
Indiana	2.0	1.9	-.1
Iowa	1.5	1.7	.2
Kansas	.9	2.0	1.1
Kentucky	1.1	1.2	.1
Louisiana	.8	1.1	.3
Maine	2.4	.7	-1.7
Maryland	1.6	1.9	.3
Massachusetts	1.8	1.9	.1
Michigan	2.9	3.9	1.0
Minnesota	5.5	5.5	0.0
Mississippi	1.7	1.6	-.1
Missouri	1.4	1.6	.2
Montana	1.1	.5	-.6
Nebraska	.6	.6	0.0
Nevada	2.8	2.0	-.8
New Hampshire	.4	1.3	.9
New Jersey	2.4	2.2	-.2
New Mexico	1.6	2.4	.8
New York	.9	.9	0.0
N. Carolina	4.0	4.2	.2
N. Dakota	1.7	1.8	.1
Ohio	1.1	1.8	.7
Oklahoma	2.5	2.0	-.5
Oregon	1.0	2.1	1.1
Pennsylvania	2.4	2.4	0.0
Rhode Island	.2	.2	0.0
S. Carolina	1.5	1.2	-.3
S. Dakota	4.2	3.5	-.7
Tennessee	1.3	1.5	.2
Texas	1.8	1.0	-.8
Utah	2.1	1.7	-.4
Vermont	1.4	2.0	.6
Virginia	.5	.6	.1
Washington	.9	2.6	1.7
W. Virginia	1.9	1.8	-.1
Wisconsin	1.6	1.1	-.5
Wyoming	0.0	.7	.7
Puerto Rico	2.6	4.4	1.8

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 138 - Difference in Percentage Points of Enrollment in Office Occupations as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Office Occupations Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	24.2	23.3	-.9
Alabama	9.7	10.4	.7
Alaska	38.2	53.0	14.8
Arizona	19.3	20.1	.8
Arkansas	7.8	10.7	2.9
California	34.7	31.2	-3.5
Colorado	21.5	20.2	-1.3
Connecticut	40.7	39.8	-.9
Delaware	50.2	33.8	-16.4
Dist. of C.	8.6	7.8	-.8
Florida	17.6	19.6	2.0
Georgia	32.5	28.8	-3.7
Hawaii	31.5	26.6	-4.9
Idaho	18.4	16.8	-1.6
Illinois	43.8	38.7	-5.1
Indiana	15.1	17.8	2.7
Iowa	7.8	9.0	1.2
Kansas	10.4	12.1	1.7
Kentucky	13.6	13.7	.1
Louisiana	34.4	31.2	-3.2
Maine	38.4	41.7	3.3
Maryland	37.1	35.8	-1.3
Massachusetts	58.1	48.8	-9.3
Michigan	19.2	18.9	-.3
Minnesota	13.2	13.1	-.1
Mississippi	7.1	7.2	.1
Missouri	12.7	13.0	.3
Montana	19.6	24.4	4.8
Nebraska	11.3	12.6	1.3
Nevada	26.9	26.2	-.7
New Hampshire	43.0	27.8	-15.2
New Jersey	29.5	36.7	7.2
New Mexico	37.7	30.4	-7.3
New York	32.5	36.3	3.8
N. Carolina	8.2	7.5	-.7
N. Dakota	16.4	16.0	-.4
Ohio	10.6	12.8	2.2
Oklahoma	8.2	6.0	-2.2
Oregon	23.2	21.0	-2.2
Pennsylvania	30.2	23.4	-6.8
Rhode Island	4.1	4.1	0.0
S. Carolina	11.8	10.8	-1.0
S. Dakota	8.1	6.4	-1.7
Tennessee	11.2	13.0	1.8
Texas	7.3	6.7	-.6
Utah	28.6	21.6	-7.0
Vermont	9.7	13.0	3.3
Virginia	24.7	22.5	-2.2
Washington	24.7	24.7	0.0
W. Virginia	17.6	22.7	5.1
Wisconsin	25.6	29.0	3.4
Wyoming	41.4	35.5	-5.9
Puerto Rico	16.8	21.0	4.2

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Technical education, Table 139. Technical education enrollment declined slightly (0.1 percentage points) as a percent of total enrollment in vocational education in FY 1972. Increases were shown by twenty-one States, the District of Columbia and Puerto Rico; decreases by twenty-four States: and no change by five States. The greatest increase (2.8 percentage points) was shown by Arizona and Utah. The largest decrease (4.6 percentage points) was shown by Alaska. Four States were at the mean (Georgia, Kentucky, Missouri, and North Carolina).

Arizona said good growth in its community colleges was the cause of its increased percentage of technical education. Utah explained that there had been an adjustment in the way local districts interpreted different classes and this had caused increased enrollment figures. Louisiana reported that technical education was mostly at the State University, with a few programs in one junior college, and its enrollment was stable. Arkansas reported that no new programs had been added in post-secondary schools, where its technical education programs are largely located. Alaska said its decrease was due to the lack of a State level supervisor or consultant and to substantial increases in enrollment in other occupational areas.

Trade and industrial education, Table 140. For FY 1972, trade and industrial education showed a gain (1.2 percentage points) over FY 1972. Thirty-two States and Puerto Rico showed increases; seventeen States and the District of Columbia showed losses; and Missouri showed no change. The greatest increase was reported by Pennsylvania (16.2 percentage points). The largest decline was reported by the District of Columbia (7.8 percentage points).

Pennsylvania noted that it is a highly industrialized State, and in trying to meet labor needs it has established about eight new area vocational-technical schools. Missouri said the traditional three-hour block of time was a prohibitive factor in trying to establish new programs.

Table 139 - Difference in Percentage Points of Enrollment in Techncial Education as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Technical Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	3.4	3.3	-.1
Alabama	1.6	.5	-1.1
Alaska	12.9	8.4	-4.5
Arizona	4.1	6.9	2.8
Arkansas	.1	.1	0.0
California	4.2	4.5	.3
Colorado	4.8	4.1	-.7
Connecticut	10.0	8.0	-2.0
Delaware	2.3	2.1	-.2
Dist. of C.	0.0	1.0	1.0
Florida	6.4	5.5	-.9
Georgia	2.8	2.7	-.1
Hawaii	1.0	1.6	.6
Idaho	2.4	1.8	-.6
Illinois	2.5	2.2	-.3
Indiana	.8	1.2	.4
Iowa	1.7	1.1	-.6
Kansas	.6	.9	.3
Kentucky	.8	.7	-.1
Louisiana	2.0	2.0	0.0
Maine	5.2	1.6	-3.6
Maryland	4.0	5.5	1.5
Massachusetts	1.6	2.9	1.3
Michigan	3.6	5.1	1.5
Minnesota	3.4	3.4	0.0
Mississippi	6.1	7.5	1.4
Missouri	2.8	2.7	-.1
Montana	2.4	4.0	1.6
Nebraska	.9	1.4	.5
Nevada	10.7	11.3	.6
New Hampshire	1.3	2.8	1.5
New Jersey	2.3	3.8	1.5
New Mexico	1.2	1.3	.1
New York	6.1	4.2	-1.9
N. Carolina	2.8	2.7	-.1
N. Dakota	2.3	1.5	-.8
Ohio	1.5	1.7	.2
Oklahoma	7.2	4.2	-3.0
Oregon	4.5	3.0	-1.5
Pennsylvania	5.4	6.0	.6
Rhode Island	3.8	4.2	.4
S. Carolina	1.3	.3	-1.0
S. Dakota	3.1	1.9	-1.2
Tennessee	2.5	3.5	1.0
Texas	1.4	1.4	0.0
Utah	.7	3.5	2.8
Vermont	2.8	2.9	.1
Virginia	1.7	1.7	0.0
Washington	4.7	3.7	-1.0
W. Virginia	4.2	3.3	-.9
Wisconsin	3.7	3.1	-.6
Wyoming	1.5	1.2	-.3
Puerto Rico	1.6	1.8	.2

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 140 - Difference in Percentage Points of Enrollment in Trade and Industry as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Total Trade & Industry Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	22.4	23.6	1.2
Alabama	23.0	26.4	3.4
Alaska	15.5	30.9	15.4
Arizona	18.9	19.4	.5
Arkansas	23.3	21.9	-1.4
California	22.8	23.4	.6
Colorado	19.8	19.3	-.5
Connecticut	24.7	18.5	-6.2
Delaware	14.3	23.0	8.7
Dist. of C.	30.7	22.9	-7.8
Florida	20.7	17.6	-3.1
Georgia	14.4	19.1	4.7
Hawaii	20.3	31.4	11.1
Idaho	16.0	16.5	.5
Illinois	32.8	34.0	1.2
Indiana	21.0	19.5	-1.5
Iowa	20.4	18.4	-2.0
Kansas	41.5	40.5	-1.0
Kentucky	24.8	21.7	-3.1
Louisiana	13.6	15.5	1.9
Maine	31.9	39.5	7.6
Maryland	19.3	18.4	-.9
Massachusetts	27.5	26.4	-1.1
Michigan	26.1	28.1	2.0
Minnesota	23.3	23.6	.3
Mississippi	21.7	22.7	1.0
Missouri	18.4	18.4	0.0
Montana	24.1	31.2	7.1
Nebraska	22.9	26.7	3.8
Nevada	26.9	26.3	-.6
New Hampshire	17.3	19.6	2.3
New Jersey	17.5	16.8	-.7
New Mexico	14.2	19.0	4.8
New York	18.8	20.5	1.7
N. Carolina	32.6	34.9	2.3
N. Dakota	13.7	15.6	1.9
Ohio	24.2	22.7	-1.5
Oklahoma	20.7	27.6	6.9
Oregon	19.2	23.0	3.8
Pennsylvania	22.6	38.8	16.2
Rhode Island	27.5	27.7	.2
S. Carolina	19.9	25.9	6.0
S. Dakota	14.1	17.8	3.7
Tennessee	26.4	27.1	.7
Texas	15.0	12.4	-2.6
Utah	18.8	16.3	-2.5
Vermont	28.5	30.9	2.4
Virginia	25.2	28.1	2.9
Washington	20.2	22.2	2.0
W. Virginia	31.4	26.1	-5.3
Wisconsin	25.4	26.3	.9
Wyoming	9.8	7.9	-1.9
Puerto Rico	19.1	23.4	4.3

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

RACIAL AND ETHNIC GROUPS

There was a slight decline in the representation of racial and ethnic minorities in vocational education between FY 1971 and FY 1972. However, errors previously noted in Illinois' reporting of race figures may account for this decline. Closer examination reveals that Negro enrollment declined in both enrollment numbers and in percent of total enrollment. The other three minorities on which data were available -- American Indian, Oriental, and Spanish-surnamed -- all showed increases in both number enrolled and in percentage point change. Examination of the tables will yield data on the changes in the enrollment at the secondary, post-secondary, and adult levels.

A truly comprehensive gathering and reporting of data would include the types of training in which minority persons enroll, placement opportunities, and job success and satisfaction. However, this information is not available in most States.

Information about racial and ethnic background and the ways in which such information is used has been a sensitive subject for a number of years. This continued sensitivity about the subject has contributed to the data going ungathered or being only partially reported. Being aware that misuse may have occurred, more extensive data gathering and reporting by fair-minded persons seems essential if our educational system is to be monitored by an informed and an alert citizenry.

Negro vocational education students, Table 141. Thirty-five States reported increased percentages of Negro enrollment. Nine States reported decreased percentages. For six States, the District of Columbia, and Puerto Rico, no data were available. Negro enrollment declined as a percent of total enrollment in vocational education. The greatest increase of percentage points of Negro enrollment was shown by Delaware (12.33 percentage points). The greatest decrease in percentage points was shown by Illinois (17.84 percentage points).

Delaware reported that with new State legislation, vocational education was offered in all schools, and more participation by Negroes was encouraged. North Dakota pointed out that it has a very small Negro population. Most Negroes there were associated with two large air bases, and their training came through military channels. Illinois said its data probably was the result of inaccurate reporting, and that there probably had been no actual decline in Negro enrollment.

American Indian vocational education students, Table 142. During FY 1972, American Indian enrollment increased 0.35 percentage points as a percent of total enrollment in vocational education. Thirty-one States and the District of Columbia reported increased percentages of American Indian enrollment. Nine States reported decreased enrollment percentages. One State reported no change. For nine States and Puerto Rico, data were not available.

Table 161 - Difference in Percentage Points of Negro Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Negro Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
TOTAL	18.95	16.61	-2.34
Alabama	38.62	34.65	-3.97
Alaska	7.98	10.94	2.96
Arizona	1.96	3.08	1.12
Arkansas	22.29	22.45	.16
California	9.29	9.39	.10
Colorado	1.36	2.76	1.40
Connecticut	NA	NA	NA
Delaware	29.56	41.89	12.33
Dist. of C.	96.96	NA	NA
Florida	18.77	24.33	5.56
Georgia	23.77	29.51	5.74
Hawaii	.83	NA	NA
Idaho	.20	.34	.14
Illinois	40.99	23.15	-17.84[1]
Indiana	NA	11.20	NA
Iowa	2.81	3.32	.51
Kansas	6.85	6.61	-.24
Kentucky	16.70	12.00	-4.70
Louisiana	35.31	36.99	1.68
Maine	.12	NA	NA
Maryland	19.24	28.79	9.55
Massachusetts	4.43	5.29	.86
Michigan	14.77	15.39	.62
Minnesota	NA	NA	NA
Mississippi	37.88	43.61	5.73
Missouri	16.66	17.24	.58
Montana	.29	.36	.07
Nebraska	9.02	3.11	-5.91
Nevada	5.63	6.74	1.11
New Hampshire	.05	.12	.07
New Jersey	16.79	22.04	5.25
New Mexico	1.17	1.47	.30
New York	14.99	18.00	3.01
N. Carolina	30.89	29.33	-1.56
N. Dakota	.18	.22	.04
Ohio	25.87	29.74	3.87
Oklahoma	6.30	7.53	1.23
Oregon	1.65	1.71	.06
Pennsylvania	11.01	10.68	-.33
Rhode Island	3.05	3.66	.61
S. Carolina	49.56	48.06	-1.50
S. Dakota	.05	.21	.16
Tennessee	24.17	28.36	4.19
Texas	15.06	15.71	.65
Utah	2.27	.69	-1.58
Vermont	.08	.16	.08
Virginia	20.67	24.65	3.98
Washington	2.46	2.62	.16
W. Virginia	NA	4.38	NA
Wisconsin	.24	3.04	2.80
Wyoming	1.22	1.50	.28

[1] Inaccuracy in reporting makes Illinois figures questionable.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 142 - Difference in Percentage Points of American Indian Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	American Indian Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
TOTAL	.49	.84	.35
Alabama	.09	.01	-.08
Alaska	46.34	43.61	-2.73
Arizona	2.05	3.90	1.85
Arkansas	.06	.07	.01
California	.39	.40	.01
Colorado	.28	.62	.34
Connecticut	NA	NA	NA
Delaware	.01	.02	.01
Dist. of C.	0.00	.02	.02
Florida	.09	.27	.18
Georgia	0.00	.17	.17
Hawaii	.15	NA	NA
Idaho	1.32	1.54	.22
Illinois	.24	2.32	2.08
Indiana	NA	0.00	NA
Iowa	.11	.14	.03
Kansas	.30	.35	.05
Kentucky	.59	.30	-.29
Louisiana	.04	.02	-.02
Maine	.08	NA	NA
Maryland	.28	.50	.22
Massachusetts	.05	.14	.09
Michigan	.14	.23	.09
Minnesota	NA	NA	NA
Mississippi	.08	.06	-.02
Missouri	0.00	.04	.04
Montana	7.95	8.05	.10
Nebraska	.15	.31	.16
Nevada	3.01	3.51	.50
New Hampshire	NA	0.00	NA
New Jersey	NA	.06	NA
New Mexico	9.08	10.00	.92
New York	NA	1.58	NA
N. Carolina	1.06	1.01	-.05
N. Dakota	1.57	2.35	.78
Ohio	.20	.16	-.04
Oklahoma	5.09	5.74	.65
Oregon	1.01	1.20	.19
Pennsylvania	0.00	.22	.22
Rhode Island	0.00	.02	.02
S. Carolina	.04	.15	.11
S. Dakota	1.73	4.11	2.38
Tennessee	.14	.14	0.00
Texas	.09	.12	.03
Utah	2.38	1.14	-1.24
Vermont	.05	.01	-.04
Virginia	.02	.25	.23
Washington	1.36	1.68	.32
W. Virginia	NA	.03	NA
Wisconsin	.05	.54	.49
Wyoming	2.56	2.63	.07
Puerto Rico	NA	NA	NA

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

The range of percentage change was from an increase of 2.38 percentage points in South Dakota to a decrease of 2.73 percentage points in Alaska.

South Dakota listed two reasons for the leading increase in its percentage. First, the Bureau of Indian Affairs built a school for Indians and turned the operation of the school over to the State. Second, more Indians were moving off reservations and going to public schools where they were enrolling in vocational education.

Oriental vocational education students, Table 143. Enrollment of Oriental persons increased slightly as a percent of total enrollment in vocational education in FY 1972. Thirty States and the District of Columbia reported increased participation of Oriental persons as reflected by higher percentages in FY 1972. Eleven States showed lower percentages. Two States showed no change. No data were available for seven States and Puerto Rico.

The range of the change was from an increase of 6.46 percentage points in Illinois to a decrease of 2.31 percentage points in Alaska. The average change was an increase of 0.30 percentage points; Virginia and Wyoming fell nearest the mean with an increase of 0.23 percentage points.

Spanish-surnamed American vocational education students, Table 144. Enrollment of persons with Spanish surnames increased slightly as a percent of the total enrollment in vocational education. Thirty-two States and the District of Columbia showed increase. Ten States showed decreased percentages. Two States showed no change. There were no data for six States and Puerto Rico.

The change in the percent to which persons with Spanish surnames contributed to the total enrollment in vocational education ranged from an increase in percentage points 6.76 in Colorado to a decrease of 2.70 percentage points in Utah. The average change was an increase of 0.17 percentage points; at the mean were California and Maryland.

As the State which showed the greatest increase, Colorado reported that a concentrated effort had been made to reach minority groups and that there had been much work with school counselors. It was also thought that local schools had reported more accurately than in previous years. Massachusetts reported that a lack of State personnel inhibited its efforts to extend vocational education programs to more persons with Spanish surnames. Utah reported that more accurate counts resulted in a statistical decrease.

Other vocational education students, Table 145. The "Other" vocational education students category is composed of all persons not identified as belonging to one of the minorities previously reported on -- Negro, Oriental, Spanish-surnamed, American Indian. Therefore, the "Other" group is composed of those persons and groups which, for the purpose of this Report, have not been separately identified; they become the "majority".

Table 143 - Difference in Percentage Points of Oriental Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
TOTAL	.70	1.00	.30
Alabama	.28	0.00	-.28
Alaska	5.01	2.70	-2.31
Arizona	.18	.32	.14
Arkansas	.47	.46	-.01
California	2.19	2.22	.03
Colorado	.57	1.74	1.17
Connecticut	NA	NA	NA
Delaware	.11	.17	.06
Dist. of C.	.14	3.56	3.42
Florida	.10	.20	.10
Georgia	0.00	.07	.07
Hawaii	45.37	NA	NA
Idaho	1.02	.55	-.47
Illinois	.49	6.95	6.46[1]
Indiana	NA	0.00	NA
Iowa	.05	.06	.01
Kansas	.14	.09	-.05
Kentucky	.11	.03	-.08
Louisiana	.08	.08	0.00
Maine	.05	NA	NA
Maryland	.35	.52	.17
Massachusetts	.30	.27	-.03
Michigan	.34	.54	.20
Minnesota	NA	NA	NA
Mississippi	.01	.04	.03
Missouri	.26	.28	.02
Montana	0.00	.02	.02
Nebraska	.03	.08	.05
Nevada	.42	.51	.09
New Hampshire	0.00	.06	.06
New Jersey	.29	.12	-.17
New Mexico	.27	.29	.02
New York	NA	1.27	NA
N. Carolina	.04	.05	.01
N. Dakota	.05	.10	.05
Ohio	.16	.23	.07
Oklahoma	.08	.07	-.01
Oregon	.66	.71	.05
Pennsylvania	0.00	.09	.09
Rhode Island	.19	.19	0.00
S. Carolina	0.00	1.39	1.39
S. Dakota	.03	.05	.02
Tennessee	.04	.06	.02
Texas	.19	.28	.09
Utah	.87	.57	-.30
Vermont	.03	.04	.01
Virginia	.03	.26	.23
Washington	1.55	1.41	-.14
W. Virginia	NA	.09	NA
Wisconsin	0.00	.13	.13
Wyoming	.32	.55	.23
Puerto Rico	NA	NA	NA

[1] Inaccuracy in reporting makes Illinois' figures questionable.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 144 - Difference in Percentage Points of Spanish-surnamed American Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Spanish-surnamed American Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
TOTAL	5.89	6.06	.17
Alabama	.06	.01	-.05
Alaska	0.00	0.00	0.00
Arizona	8.40	11.62	3.22
Arkansas	.47	.45	-.02
California	15.99	16.16	.17
Colorado	5.10	11.86	6.76
Connecticut	NA	NA	NA
Delaware	.36	.54	.18
Dist. of C.	.69	8.32	7.63
Florida	2.29	4.50	2.21
Georgia	0.00	.06	.06
Hawaii	.25	NA	NA
Idaho	2.03	1.85	-.18
Illinois	6.99	11.58	4.59[1]
Indiana	NA	2.24	NA
Iowa	.36	.40	.04
Kansas	1.50	1.45	-.05
Kentucky	.21	.13	-.08
Louisiana	.35	.39	.04
Maine	0.00	NA	NA
Maryland	.32	.49	.17
Massachusetts	1.37	1.39	.02
Michigan	.78	.85	.07
Minnesota	NA	NA	NA
Mississippi	.03	.12	.09
Missouri	.46	.61	.15
Montana	.09	.47	.38
Nebraska	.70	.90	.20
Nevada	2.83	2.89	.06
New Hampshire	.02	.13	.11
New Jersey	3.87	5.21	1.34
New Mexico	49.98	54.23	4.25
New York	7.95	9.85	1.90
N. Carolina	.01	.09	.08
N. Dakota	.22	.15	-.07
Ohio	1.58	.98	-.60
Oklahoma	.56	.52	-.04
Oregon	.69	.74	.05
Pennsylvania	0.00	1.03	1.03
Rhode Island	1.07	1.19	.12
S. Carolina	0.00	0.00	0.00
S. Dakota	.07	.65	.58
Tennessee	.06	.10	.04
Texas	21.09	20.27	-.82
Utah	6.70	4.00	-2.70
Vermont	.04	.11	.07
Virginia	.04	.38	.34
Washington	1.55	1.57	.02
W. Virginia	NA	.08	NA
Wisconsin	0.00	.65	.65
Wyoming	13.94	14.90	.96
Puerto Rico	NA	NA	NA

[1] Inaccuracy in reporting makes Illinois race figures questionable.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 145 - Difference in Percentage Points of Other Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Other Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
TOTAL	73.76	85.30	11.54
Alabama	60.93	70.88	9.95
Alaska	40.66	42.85	2.19
Arizona	87.36	81.89	-5.47
Arkansas	76.69	81.70	5.01
California	72.10	72.83	.73
Colorado	92.63	83.03	-9.60
Connecticut	NA	NA	NA
Delaware	69.94	73.73	3.79
Dist. of C.	2.19	0.00	-2.19
Florida	74.49	88.89	14.40
Georgia	76.22	75.66	-.56
Hawaii	33.37	NA	NA
Idaho	95.41	96.65	1.24
Illinois	51.25	187.55	136.30[1]
Indiana	NA	86.56	NA
Iowa	96.64	96.07	-.57
Kansas	91.19	97.79	6.60
Kentucky	82.36	87.54	5.18
Louisiana	64.20	62.56	-1.64
Maine	99.72	NA	NA
Maryland	79.79	99.38	19.59
Massachusetts	93.82	92.92	-.90
Michigan	83.95	82.99	-.96
Minnesota	NA	NA	NA
Mississippi	61.98	61.40	-.58
Missouri	82.59	81.82	-.77
Montana	91.64	102.44	10.80
Nebraska	90.08	102.96	12.88
Nevada	88.08	92.74	4.66
New Hampshire	99.91	138.65	38.74
New Jersey	79.03	72.57	-6.46
New Mexico	39.48	43.10	3.62
New York	77.05	91.23	14.18
N. Carolina	67.97	82.70	14.73
N. Dakota	97.96	97.18	-.78
Ohio	72.17	77.31	5.14
Oklahoma	87.94	86.72	-1.22
Oregon	95.96	104.32	8.36
Pennsylvania	88.98	87.98	-1.00
Rhode Island	95.67	94.95	-.72
S. Carolina	50.51	59.78	9.27
S. Dakota	98.10	113.30	15.20
Tennessee	75.57	72.36	-3.21
Texas	62.58	67.56	4.98
Utah	87.75	107.79	20.04
Vermont	99.77	99.97	.20
Virginia	79.22	99.14	19.92
Washington	95.19	95.51	.32
W. Virginia	NA	95.73	NA
Wisconsin	99.68	95.64	-4.04
Wyoming	81.92	92.25	10.33
Puerto Rico	NA	NA	NA

[1] Inaccuracy in reporting makes Illinois race figures questionable.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

The average change was an increase of 11.54 percentage points. Twenty-eight States showed increased percentages. Sixteen States and the District of Columbia showed decreased percentages. For six States and Puerto Rico, data were not available. The State that showed the greatest increase in the percentage of enrollment for Other students as a part of total vocational education enrollment was Illinois (136.30 percentage points). The State that showed the greatest decrease in percentage points was Colorado (9.60 percentage points). Colorado reported that local educational agencies were forwarding more accurate data as a result of the students' more open self-classification.

MALE AND FEMALE ENROLLMENT

There was a very slight change (0.1 percentage points) in the distribution of males and females enrolled in vocational education in FY 1972. Males comprised 44.5 percent of the total enrollment, while females comprised 55.5 percent. However, if the number of persons enrolled in consumer and homemaking, which is predominately female and is not oriented toward placement in wage-earning occupations, were substracted from the total vocational education enrollment, the enrollment would then be predominately male.

Male and female vocational education enrollment, Table 146. Inasmuch as there is a reciprocal relationship between male and female enrollment percentages, a State that had an increase in the enrollment percent of one sex had a decrease in the enrollment percent of the other sex.

For FY 1972, the shift was slight in the balance of male and female enrollment; male enrollment percentage decreased 0.1 percentage points on the average and comprised 44.5 [illegible]rcent of the total vocational education enrollment while female enrollment increased 0.1 percentage points and comprised 55.5 percent.

As a percent of total enrollment, male enrollment increased in thirty-four States and Puerto Rico and decreased in sixteen States and the District of Columbia. Female enrollment, as a percent of total enrollment, decreased in thirty-four States and Puerto Rico, and increased in sixteen States and the District of Columbia.

The greatest change in the male/female enrollment percentages was shown by Montana. The male enrollment increased 10.3 percentage points, and female enrollment decreased the same. For females, New York showed an increase of 6.3 percentage points; for males the percentage decreased equally.

Montana reported that new programs were available in occupational areas traditionally pursued by males. In addition, there was crossing of traditional occupational lines by both males and females. California, which was at the mean, reported it had started relatively few new programs.

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Table 146 - Difference in Percentage Points in Male Vocational Education Enrollment and Female Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Male Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972	Female Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72		1970-71	1971-72	
U.S. TOTAL	44.6	44.5	-.1	55.4	55.5	.1
Alabama	60.0	56.2	-3.8	40.0	43.8	3.8
Alaska	49.0	53.9	4.9	51.0	46.1	-4.9
Arizona	41.7	43.4	1.7	58.3	56.6	-1.7
Arkansas	52.0	51.5	-.5	48.0	48.5	.5
California	45.9	46.0	.1	54.1	54.0	-.1
Colorado	36.3	42.6	6.3	63.7	57.4	-6.3
Connecticut	42.5	38.1	-4.4	57.5	61.9	4.4
Delaware	31.0	40.4	9.4	69.0	59.6	-9.4
Dist. of C.	37.1	35.5	-1.6	62.9	64.5	1.6
Florida	41.0	42.1	1.1	59.0	57.9	-1.1
Georgia	43.1	44.3	1.2	56.9	55.7	-1.2
Hawaii	37.9	47.2	9.3	62.1	52.8	-9.3
Idaho	39.7	41.8	2.1	60.3	58.2	-2.1
Illinois	52.0	52.6	.6	48.0	47.4	-.6
Indiana	43.0	42.3	-.7	57.0	57.7	.7
Iowa	47.5	48.4	.9	52.5	51.[illegible]	-.9
Kansas	58.0	53.8	-4.2	42.0	46.2	4.2
Kentucky	46.0	47.9	1.9	54.0	52.1	-1.9
Louisiana	38.0	38.1	.1	62.0	61.9	-.1
Maine	45.0	46.1	1.1	55.0	53.9	-1.1
Maryland	32.0	28.7	-3.3	68.0	71.3	3.3
Massachusetts	46.5	45.1	-1.4	53.5	54.9	1.4
Michigan	50.3	49.8	-.5	49.7	50.2	.5
Minnesota	38.0	39.0	1.0	62.0	61.0	-1.0
Mississippi	46.0	53.6	7.6	54.0	46.4	-7.6
Missouri	38.0	39.1	1.1	62.0	60.9	-1.1
Montana	43.0	53.3	10.3	57.0	46.7	-10.3
Nebraska	43.7	46.3	2.6	56.3	53.7	-2.6
Nevada	51.0	53.6	2.6	49.0	46.4	-2.6
New Hampshire	28.8	29.8	1.0	71.2	70.2	-1.0
New Jersey	36.0	36.9	.9	64.0	63.1	-.9
New Mexico	39.5	39.3	-.2	60.5	60.7	.2
New York	36.0	29.7	-6.3	64.0	70.3	6.3
N. Carolina	50.0	51.1	1.1	50.0	48.9	-1.1
N. Dakota	51.0	46.1	-4.9	49.0	53.9	4.9
Ohio	49.0	47.3	-1.7	51.0	52.7	1.7
Oklahoma	50.9	55.7	4.8	49.1	44.3	-4.8
Oregon	36.1	38.2	2.1	63.9	61.8	-2.1
Pennsylvania	48.0	51.3	3.3	52.0	48.7	-3.3
Rhode Island	40.0	41.1	1.1	60.0	58.9	-1.1
S. Carolina	49.0	54.1	5.1	51.0	45.9	-5.1
S. Dakota	37.0	39.2	2.2	63.0	60.8	-2.2
Tennessee	48.6	48.3	-.3	51.4	51.7	.3
Texas	50.4	45.8	-4.6	49.6	54.2	4.6
Utah	39.0	42.7	3.7	61.0	57.3	-3.7
Vermont	46.0	49.9	3.9	54.0	50.1	-3.9
Virginia	44.0	46.7	2.7	56.0	53.3	-2.7
Washington	40.9	44.2	3.3	59.1	55.8	-3.3
W. Virginia	46.0	41.5	-4.5	54.0	58.5	4.5
Wisconsin	49.0	47.7	-1.3	51.0	52.3	1.3
Wyoming	32.5	35.5	3.0	67.5	64.5	-3.0
Puerto Rico	25.4	26.5	1.1	74.6	73.5	-1.1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

DISADVANTAGED AND HANDICAPPED ENROLLMENT

Of the total number of persons enrolled in vocational education in FY 1972, about one person in eight was disadvantaged. For FY 1972, 13.9 percent of the total enrollment was identified as disadvantaged -- an increase, as a percent of the total, of 0.7 percentage points.

There was no statistical change in the percentage of handicapped persons enrolled in FY 1972.

Handicapped persons comprise less than two percent of the total enrollment in vocational education. Yet, at least one authority suggests that as high as ten percent of the general population meet the legal definition of handicapped.[1] Apparently, vocational educators face a challenge to identify, recruit, and train thousands of additional persons who are handicapped. The reluctance to face this challenge is understandable. Many occupations require tasks of critical knowledge and/or skill. Other occupations are inherently dangerous and use power equipment. The vocational educator, having limited contact with handicapped persons, is cautious in soliciting their enrollment and placing them alongside non-handicapped students. Consequently, enrollment numbers and percents are at rather low levels.

Enrollment of disadvantaged vocational education students, Table 147. Twenty-three States and the District of Columbia showed increases in the percentages to which disadvantaged persons were enrolled in vocational education. Twenty-five States and Puerto Rico showed decreased percentages. Two States showed no change. The average change was an increase of 0.7 percentage points.

The enrollment of disadvantaged persons increased by 0.7 percentage points of the total enrollment in vocational education. The enrollment increases were greatest in the District of Columbia and Hawaii, with gains of 21.8 and 15.1 percentage points respectively. The greatest decrease was in Arizona, with a loss of 8.5 percentage points. Washington was nearest the mean, with an increase of 1.0 percentage points.

Enrollment of handicapped vocational education students, Table 148. There was no statistical difference in the extent to which handicapped persons were enrolled in vocational education from FY 1971 to FY 1972.

Twenty-seven States, Puerto Rico, and the District of Columbia showed increases in the percent to which handicapped persons comprised the total enrollment in vocational education. Twenty-one States showed

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[1] Young, Earl B., ed. Vocational Education for Handicapped Persons, Handbook for Program Implementation. (A publication developed pursuant to a grant from the U.S. Office of Education; published August, 1969. Summary of pages 5 to 13).

Table 147 - Difference in Percentage Points in Enrollment of Disadvantaged Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Disadvantaged Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	13.2	13.9	.7
Alabama	17.8	16.5	-1.3
Alaska	61.9	53.8	-8.1
Arizona	20.2	11.7	-8.5
Arkansas	28.4	28.4	0.0
California	14.3	14.2	-.1
Colorado	3.8	1.5	-2.3
Connecticut	29.4	30.8	1.4
Delaware	29.2	25.6	-3.6
Dist. of C.	15.2	37.0	21.8
Florida	11.7	15.7	4.0
Georgia	25.3	25.1	-.2
Hawaii	4.1	19.2	15.1
Idaho	2.9	5.0	2.1
Illinois	9.0	4.8	-4.2
Indiana	3.0	3.0	0.0
Iowa	9.1	13.4	4.3
Kansas	12.7	8.9	-3.8
Kentucky	7.2	15.7	8.5
Louisiana	31.9	39.2	7.3
Maine	2.5	2.1	-.4
Maryland	19.0	15.3	-3.7
Massachusetts	2.9	4.2	1.3
Michigan	6.0	5.7	-.3
Minnesota	3.8	3.3	-.5
Mississippi	6.9	7.1	.2
Missouri	7.5	7.3	-.2
Montana	10.9	13.9	3.0
Nebraska	4.3	10.9	6.6
Nevada	15.1	11.9	-3.2
New Hampshire	1.2	5.5	4.3
New Jersey	5.0	7.4	2.4
New Mexico	43.4	42.8	-.6
New York	20.9	25.6	4.7
N. Carolina	11.4	9.9	-1.5
N. Dakota	20.5	24.6	4.1
Ohio	19.4	15.8	-3.6
Oklahoma	23.9	25.4	1.5
Oregon	17.5	15.7	-1.8
Pennsylvania	7.7	7.2	-.5
Rhode Island	14.1	14.3	.2
S. Carolina	18.9	17.6	-1.3
S. Dakota	14.8	16.5	1.7
Tennessee	9.4	21.3	11.9
Texas	9.3	14.9	5.6
Utah	9.1	16.0	6.9
Vermont	20.8	20.0	-.8
Virginia	14.8	13.7	-1.1
Washington	3.3	4.3	1.0
W. Virginia	6.8	4.3	-2.5
Wisconsin	6.9	6.3	-.6
Wyoming	3.5	11.7	8.2
Puerto Rico	42.5	42.4	-.1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 148 - Difference in Percentage Points in Enrollment of Handicapped Vocational Education Students as a Percent of Total Vocational Education Enrollment, 1970-71 to 1971-72

States	Handicapped Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	1.9	1.9	0.0
Alabama	2.1	1.6	-.5
Alaska	4.8	3.2	-1.6
Arizona	.5	1.1	.6
Arkansas	2.9	3.0	.1
California	4.2	1.4	-2.8
Colorado	.6	2.5	1.9
Connecticut	.7	.6	-.1
Delaware	1.4	11.7	10.3
Dist. of C.	2.0	2.9	.9
Florida	1.3	1.6	.3
Georgia	7.7	6.8	-.9
Hawaii	2.3	3.1	.8
Idaho	.7	.6	-.1
Illinois	.9	1.0	.1
Indiana	.9	.7	-.2
Iowa	1.9	1.7	-.2
Kansas	4.1	3.7	-.4
Kentucky	1.1	2.2	1.1
Louisiana	.6	.7	.1
Maine	.8	1.0	.2
Maryland	4.7	3.7	-1.0
Massachusetts	.7	1.6	.9
Michigan	.6	.4	-.2
Minnesota	2.0	1.8	-.2
Mississippi	2.3	2.2	-.1
Missouri	1.4	2.2	.8
Montana	3.9	2.9	-1.0
Nebraska	2.[illegible]	2.8	.6
Nevada	.6	.4	-.2
New Hampshire	.5	1.0	.5
New Jersey	1.9	1.5	-.4
New Mexico	2.2	2.2	0.0
New York	.7	.9	.2
N. Carolina	2.1	1.5	-.6
N. Dakota	3.0	2.7	-.3
Ohio	2.8	4.3	1.5
Oklahoma	3.9	7.9	4.0
Oregon	1.1	1.4	.3
Pennsylvania	1.4	2.0	.6
Rhode Island	2.1	2.0	-.1
S. Carolina	3.4	3.8	.4
S. Dakota	3.6	3.9	.3
Tennessee	.8	3.7	2.9
Texas	.6	2.0	1.4
Utah	2.1	1.4	-.7
Vermont	1.2	2.1	.9
Virginia	1.1	1.7	.6
Washington	1.4	1.9	.5
W. Virginia	1.4	1.4	0.0
Wisconsin	1.1	1.3	.2
Wyoming	1.7	1.5	-.2
Puerto Rico	.6	1.3	.7

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

decreases in percentages. However, the changes -- either positive or negative -- were less than one percent in thirty-seven of the States, Puerto Rico, and the District of Columbia. Two States showed no change.

The greatest increase in the percent of handicapped persons enrolled (10.3 percentage points) was shown by Delaware. The largest decrease in the percent of handicapped persons enrolled was 2.8 percentage points (California).

California reported that a more strict definition of handicapped was being applied by local education agencies, and this resulted in its decrease. Delaware reported that there was an emphasis on education for disadvantaged persons at all levels within the State. This resulted in action by the Governor's staff, the administrators in the State Department of Education, and people in local educational agencies.

EXPENDITURES FOR VOCATIONAL EDUCATION

There are two notable characteristics in the following tables. First, compared with the average rise (over $24 per year) in per student expenditures over the past five years, the increase in 1971-72 was relatively small (3.85). During the year, inflation in the economy was greater than the increased percent of Federal funding. The result was that, in effect, financial support for vocational education has diminished, on a per student basis.

The second notable characteristic is that while relatively low Federal appropriations, when adjusted for inflationary losses, are not keeping pace with enrollment growth, State and local funding is not only compensating for lagging Federal funds but also advancing further monies to increase the average expenditure per student.

Federal and State/local expenditures, Table 149. Counting Federal, State and local monies, the expenditure per person in vocational education in FY 1972 increased by $3.85, or 14.7 percent, over FY 1971. Thirty-six States and Puerto Rico increased their per student expenditure. Fourteen States decreased their spending per person. No data were available for the District of Columbia.

Maine showed the highest dollar-per-person increase in FY 1972 -- $95.37. Puerto Rico and Louisiana showed the greatest percent of increase in FY 1972 over FY 1971 -- 40.19 and 37.21 percent of change respectively.

Oklahoma showed almost no percent of change in per pupil expenditures (0.32 percent). Vermont showed the greatest decrease in both dollars ($317.52 per student) and percentage (36.45 percent).

Maine reported that increased dollar expenditures on a per student basis were the result of greater construction costs, more construction of facilities for adults, and more accurate local reporting of expenditures. Louisiana said more accurate local reporting caused its high percent of change. Oklahoma reported that while larger sums of money were spent in vocational education, larger enrollments offset any potential per-pupil gains and resulted in its virtually no-change position.

Table 149 - Dollar Difference and Percent of Change of Federal and State/Local Expenditures Per Student in Vocational Education, 1970-71 to 1971-72

States	Federal and State/Local Expenditures Per Student in Vocational Education		Dollar Difference in Expenditures per Student FY 1971 & FY 1972	Percent of Change FY 1971 & FY 1972
	1970-71	1971-72		
U.S. TOTAL	$262.00	$265.85	3.85	1.47
Alabama	245.00	240.69	-4.31	-1.76
Alaska	311.00	237.30	-73.70	-23.70
Arizona	162.00	172.19	10.19	6.29
Arkansas	134.00	147.03	13.03	9.72
California	200.00	212.65	12.65	6.33
Colorado	250.00	284.90	34.90	13.96
Connecticut	284.00	306.60	22.60	7.96
Delaware	234.00	232.04	-1.96	-.84
Dist. of C.	351.00	NA	NA	NA
Florida	172.00	184.60	12.60	7.33
Georgia	181.00	180.38	-.62	-.34
Hawaii	186.00	194.47	8.47	4.55
Idaho	206.00	220.45	14.45	7.01
Illinois	338.00	317.35	-20.65	-6.11
Indiana	215.00	231.70	16.70	7.77
Iowa	248.00	258.77	10.77	4.34
Kansas	172.00	198.58	26.58	15.45
Kentucky	195.00	209.13	14.13	7.25
Louisiana	133.00	182.49	49.49	37.21
Maine	434.00	529.37	95.37	21.97
Maryland	398.00	403.70	5.70	1.43
Massachusetts	1,001.00	786.42	-214.58	-21.44
Michigan	163.00	157.61	-5.39	-3.31
Minnesota	220.00	240.62	20.62	9.37
Mississippi	205.00	240.78	35.78	17.45
Missouri	254.00	277.99	23.99	9.44
Montana	250.00	265.57	15.57	6.23
Nebraska	170.00	181.88	11.88	6.99
Nevada	206.00	208.68	2.68	1.30
New Hampshire	252.00	296.04	44.04	17.48
New Jersey	134.00	137.15	3.15	2.35
New Mexico	182.00	194.73	12.73	6.99
New York	442.00	435.60	-6.40	-1.45
N. Carolina	219.00	229.97	10.97	5.01
N. Dakota	217.00	185.66	-31.34	-14.44
Ohio	474.00	337.59	-136.41	-28.78
Oklahoma	265.00	265.86	.86	.32
Oregon	227.00	221.99	-5.01	-2.21
Pennsylvania	450.00	525.43	75.43	16.76
Rhode Island	348.00	442.67	94.67	27.20
S. Carolina	226.00	243.64	17.64	7.81
S. Dakota	217.00	244.30	27.30	12.58
Tennessee	222.00	263.84	41.84	18.85
Texas	184.00	208.98	24.98	13.58
Utah	174.00	182.95	8.95	5.14
Vermont	871.00	553.48	-317.52	-36.45
Virginia	162.00	166.75	4.75	2.93
Washington	193.00	213.28	20.28	10.51
W. Virginia	192.00	229.00	37.00	19.27
Wisconsin	339.00	281.94	-57.06	-16.83
Wyoming	334.00	261.83	-72.17	-21.61
Puerto Rico	200.00	280.38	80.38	40.19

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Federal and State/local expenditures in secondary vocational education, Table 150. For secondary vocational education, there was and increase of $10.47 per pupil, or 3.49 percent, for FY 1972 over FY 1971. Thirty-six States and Puerto Rico showed increased expenditures in both dollars and percent. Fourteen States showed decreases. No data were available for the District of Columbia.

Puerto Rico showed the highest dollar and percentage increase with an additional $219.72 per pupil for a 54.73 percent rise. Rhode Island was the State that showed the greatest dollar increase, a rise of $126.89 per pupil. The State with the largest percent of increase, 50.97 percent, was Louisiana. The largest decrease both in dollars expended per student and in percent change was shown by Vermont ($373.48, or 33.83 percent). Nevada was nearest a position of no change with a decrease of $0.49 and 0.22 percent.

Rhode Island reported that a large State bond issue allowed greater expenditures for construction in vocational education and contributed to its high standing. Louisiana stated that more local educational agencies were accurately reporting local expenditures, and this gave an apparent rise in local expenditures. Nevada said more accurate local reporting possibly contributed to its relatively unchanged status. Vermont reported two factors -- construction monies in FY 1971 caused higher than usual expenditures, which fell to a more typical level in FY 1972; and enrollments rose substantially in FY 1972 -- together caused a marked decrease in per student spending.

Federal and State/local expenditures in post-secondary vocational education, Table 151. For post-secondary vocational education in FY 1972 there was an average increase in the combined expenditures from the Federal, State, and local sources of $3.15 per student; this was an increase of 0.59 percent from FY 1971. Twenty-six States and Puerto Rico showed increases in per pupil expenditures, both in dollars and percent. Twenty-four States showed decreases. There were no data available for the District of Columbia.

Connecticut showed the greatest increase in dollars expended with a rise of $836.88 per pupil. Connecticut also had the largest increase in the percent of change (1,020.59 percent) between FY 1971 and FY 1972. Delaware had the largest decrease in the dollar expenditure per student ($1,580.85). Alaska had the largest decrease in the percent of change (69.96 percent).

Connecticut offered no explanation for its phenomenal increase in per pupil expenditure. Concerning its decrease, Delaware said substantial construction costs were included in FY 1971 spending. More normal construction costs in FY 1972 resulted in more typical per pupil expenditures. Alaska reported that the State Legislature did not appropriate monies needed for expansion. Monies which were available were applied to operational functions. Increased enrollments on a fixed budget created a decline in per pupil expenditures. Indiana explained its lack of change (0.37 percent) by stating that operations in FY 1971 and FY 1972 were on a biennial budget.

Table 150 - Dollar Difference and Percent of Change of Federal and State/Local Expenditures Per Student in Secondary Vocational Education, 1970-71 to 1971-72

States	Expenditures Per Student in Secondary Vocational Education		Dollar Difference in Expenditures Per Student FY 1971 & FY 1972	Percent of Change FY 1971 & FY 1972
	1970-71	1971-72		
U.S. TOTAL	$300.00	$310.47	10.47	3.49
Alabama	244.00	249.22	5.22	2.14
Alaska	360.00	324.28	-35.72	-9.92
Arizona	177.00	212.97	35.97	20.32
Arkansas	148.00	156.42	8.42	5.69
California	209.00	212.08	3.08	1.47
Colorado	329.00	368.21	39.21	11.92
Connecticut	284.00	295.71	11.71	4.12
Delaware	146.00	158.88	12.88	8.82
Dist. of C.	518.00	NA	NA	NA
Florida	240.00	199.58	-40.42	-16.84
Georgia	169.00	200.94	31.94	18.90
Hawaii	125.00	166.09	41.09	32.87
Idaho	133.00	145.82	12.82	9.64
Illinois	301.00	306.54	5.54	1.84
Indiana	268.00	297.12	29.12	10.87
Iowa	166.00	183.48	17.48	10.53
Kansas	261.00	282.76	21.76	8.34
Kentucky	218.00	200.30	-17.70	-8.12
Louisiana	109.00	164.56	56.56	50.97
Maine	435.00	491.33	56.33	12.95
Maryland	472.00	497.41	34.17	5.38
Massachusetts	1,176.00	943.26	-232.74	-19.79
Michigan	196.00	199.84	3.84	1.96
Minnesota	146.00	182.69	36.69	25.13
Mississippi	220.00	273.47	53.47	24.30
Missouri	295.00	327.54	32.54	11.03
Montana	220.00	232.95	12.95	5.89
Nebraska	149.00	183.01	34.01	22.83
Nevada	222.00	221.51	-.49	-.22
New Hampshire	187.00	251.99	64.99	34.75
New Jersey	188.00	183.07	-4.93	-2.62
New Mexico	177.00	172.19	-4.81	-2.72
New York	448.00	466.84	18.84	4.21
N. Carolina	264.00	267.62	3.62	1.37
N. Dakota	182.00	170.18	-11.82	-6.49
Ohio	645.00	557.99	-87.01	-13.49
Oklahoma	358.00	355.25	-2.75	-.77
Oregon	198.00	246.30	48.30	24.39
Pennsylvania	693.00	757.14	64.14	9.26
Rhode Island	395.00	521.89	126.89	32.12
S. Carolina	260.00	297.09	37.09	14.27
S. Dakota	194.00	226.61	32.61	16.81
Tennessee	174.00	248.61	74.61	42.88
Texas	252.00	303.24	51.24	20.33
Utah	177.00	154.30	-22.70	-12.82
Vermont	1,104.00	730.52	-373.48	-33.83
Virginia	246.00	284.17	38.17	15.52
Washington	166.00	225.85	59.85	36.05
W. Virginia	256.00	321.28	65.28	25.50
Wisconsin	116.00	82.85	-33.15	-28.58
Wyoming	251.00	195.64	-55.36	-22.06
Puerto Rico	237.00	366.72	129.72	54.73

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 151 - Dollar Difference and Percent of Change of Federal and State/Local Expenditures Per Student in Post-Secondary Vocational Education, 1970-71 to 1971-72

States	Expenditures Per Student in Post-Secondary Vocational Education		Dollar Difference in Expenditures Per Student FY 1971 & FY 1972	Percent of Change FY 1971 & FY 1972
	1970-71	1971-72		
U.S. TOTAL	$535.00	$538.15	3.15	.59
Alabama	789.00	701.91	-87.09	-11.04
Alaska	1,118.00	335.82	-782.18	-69.96
Arizona	200.00	153.56	-46.44	-23.22
Arkansas	858.00	963.94	105.94	12.35
California	309.00	339.34	30.34	9.82
Colorado	557.00	588.61	31.61	5.68
Connecticut	82.00	918.88	836.88	1,020.59
Delaware	4,271.00	2,690.15	-1,580.85	-37.01
Dist. of C.	492.00	NA	NA	NA
Florida	249.00	406.22	157.22	63.14
Georgia	1,084.00	630.00	-454.00	-41.88
Hawaii	565.00	422.88	-142.12	-25.15
Idaho	1,162.00	1,216.28	54.28	4.67
Illinois	662.00	374.59	-287.41	-43.42
Indiana	672.00	674.46	2.46	.37
Iowa	1,537.00	1,390.10	-146.90	-9.56
Kansas	749.00	711.52	-37.48	-5.00
Kentucky	813.00	927.44	114.44	14.08
Louisiana	420.00	516.39	96.39	22.95
Maine	1,846.00	1,685.71	-160.29	-8.68
Maryland	626.00	481.46	-144.54	-23.09
Massachusetts	849.00	881.40	32.40	3.82
Michigan	365.00	213.95	-151.05	-41.38
Minnesota	1,483.00	1,532.09	49.09	3.31
Mississippi	896.00	1,030.53	134.53	15.01
Missouri	184.00	503.15	319.15	173.45
Montana	967.00	959.52	-7.48	-.77
Nebraska	937.00	770.75	-166.25	-17.74
Nevada	303.00	350.73	47.73	15.75
New Hampshire	1,136.00	1,298.36	162.36	14.29
New Jersey	174.00	235.12	61.12	35.13
New Mexico	393.00	579.53	186.53	47.46
New York	800.00	821.05	21.05	2.63
N. Carolina	747.00	964.93	217.93	29.17
N. Dakota	613.00	521.24	-91.76	-14.97
Ohio	678.00	635.59	-42.41	-6.26
Oklahoma	718.00	788.07	70.07	9.76
Oregon	629.00	457.14	-171.86	-27.32
Pennsylvania	647.00	709.52	62.52	9.66
Rhode Island	1,292.00	1,522.68	230.68	17.85
S. Carolina	647.00	255.39	-391.61	-60.53
S. Dakota	962.00	919.08	-42.92	-4.46
Tennessee	859.00	796.26	-62.74	-7.30
Texas	577.00	606.44	29.44	5.10
Utah	364.00	580.44	216.44	59.46
Vermont	1,555.00	1,924.53	369.53	23.76
Virginia	337.00	343.91	6.91	2.05
Washington	382.00	372.89	-9.11	-2.38
W. Virginia	929.00	535.57	-393.43	-42.35
Wisconsin	1,201.00	1,027.72	-173.28	-14.43
Wyoming	1,093.00	1,012.37	-80.63	-7.38
Puerto Rico	251.00	281.78	30.78	12.26

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Federal and State/local expenditures in adult vocational education, Table 152. In FY 1972 there was a substantial decline ($10.51, or 14.01 percent) in the total expenditure for adult vocational education on a per pupil basis. Twenty-eight States and Puerto Rico showed increased per student expenditures. Twenty-two States showed decreased per student expenditures. There were no data available for the District of Columbia.

Illinois showed the greatest increase in dollars spent with a rise of $67.90 per student. Massachusetts showed the greatest increase in percent of change with FY 1972 being 318.95 percent larger than FY 1971. Expenditures per pupil declined $212.32 in Ohio in FY 1972, this being the highest dollar loss. The greatest loss as reflected by percent of change was shown by Wyoming, 79.38 percent.

Illinois reported a modified focus within the State which emphasized programs in occupational areas (agriculture, trade and industrial, etc.) rather than at levels (secondary, post-secondary, adult). While there was much emphasis on relatively expensive health occupations, causal factors in the high per pupil expenditures would be difficult to determine. Missouri reported that the stability in its per pupil expenditures (up $0.47, or 1.34 percent) resulted from a State finance formula. Ohio reported that FY 1971 funding was exceptionally high from mixing Appalachia monies, mainly for the construction of technical facilities. These monies were not available in FY 1972.

Federal and State/local vocational education expenditures for disadvantaged students, Table 153. The percentage of total vocational education money expended on disadvantaged persons increased slightly (1.2 percentage points) in FY 1972. Thirty-one States increased their percentages of expenditures for disadvantaged persons. Eighteen States and Puerto Rico decreased their percentages. For South Carolina, there were no FY 1971 data against which a comparison could be made. For the District of Columbia, no FY 1972 data were available.

Ohio showed the greatest percentage point increase (11.7 percentage points). Pennsylvania, Virginia, and North Dakota fell nearest the arithmetic mean of 1.2 percentage points increase. Alaska had the largest decrease in percentage points (16.4), yet it remained the State with the highest percentage of total vocational education funds spent on disadvantaged persons -- 54.5 percent in FY 1971, 38.1 percent in FY 1972.

Ohio said a foundation formula has been used to determine its expenditures for disadvantaged persons, and a modification of the formula resulted in more monies for disadvantaged persons in FY 1972. Kentucky, which showed very little change (0.1 percentage points), said that basically the same levels of Federal and State monies for vocational education were spent on disadvantaged persons. However, additional money actually was expended because Appalachian funds were also spent on these persons. Alaska reported that its decrease was due to a re-definition of disadvantaged.

Table 152 - Dollar Difference and Percent of Change of Federal and State/Local Expenditures Per Student in Adult Vocational Education, 1970-71 to 1971-72

States	Expenditures Per Student in Adult Vocational Education		Dollar Difference in Expenditures Per Student FY 1971 & FY 1972	Percent of Change FY 1971 & FY 1972
	1970-71	1971-72		
U.S. TOTAL	$75.00	$64.49	-10.51	-14.01
Alabama	22.00	17.24	-4.76	-21.64
Alaska	36.00	27.96	-8.04	-22.33
Arizona	58.00	78.12	20.12	34.69
Arkansas	10.00	12.79	2.79	27.90
California	70.00	79.72	9.72	13.89
Colorado	22.00	27.53	5.53	25.14
Connecticut	47.00	53.04	6.04	12.85
Delaware	73.00	51.68	-21.32	-29.21
Dist. of C.	87.00	NA	NA	NA
Florida	58.00	68.13	10.13	17.47
Georgia	43.00	30.60	-12.40	-28.84
Hawaii	38.00	34.86	-3.14	-8.26
Idaho	13.00	11.31	-1.69	-13.00
Illinois	252.00	319.90	67.90	26.94
Indiana	22.00	12.59	-9.41	-42.77
Iowa	39.00	41.21	2.21	5.67
Kansas	16.00	19.52	3.52	22.00
Kentucky	33.00	51.14	18.14	54.97
Louisiana	49.00	78.14	29.14	59.47
Maine	37.00	30.74	-6.26	-16.92
Maryland	24.00	59.38	35.38	147.42
Massachusetts	21.00	87.98	66.98	318.95
Michigan	39.00	42.26	3.26	8.36
Minnesota	33.00	37.83	4.83	14.64
Mississippi	36.00	34.64	-1.36	-3.78
Missouri	35.00	35.47	.47	1.34
Montana	13.00	10.08	-2.92	-22.46
Nebraska	17.00	14.90	-2.10	-12.35
Nevada	90.00	92.24	2.24	2.49
New Hampshire	103.00	68.06	-34.94	-33.92
New Jersey	18.00	20.01	2.01	11.17
New Mexico	42.00	47.49	5.49	13.07
New York	209.00	214.73	5.73	2.74
N. Carolina	46.00	35.40	-10.60	-23.04
N. Dakota	32.00	48.17	16.17	50.53
Ohio	299.00	86.68	-212.32	-71.01
Oklahoma	52.00	53.21	1.21	2.33
Oregon	79.00	65.50	-13.50	-17.09
Pennsylvania	51.00	71.18	20.18	39.57
Rhode Island	49.00	56.47	7.47	15.24
S. Carolina	36.00	16.91	-19.09	-53.03
S. Dakota	25.00	20.91	-4.09	-16.36
Tennessee	40.00	55.59	15.59	38.98
Texas	21.00	22.00	1.00	4.76
Utah	32.00	48.40	16.40	51.25
Vermont	37.00	16.71	-20.29	-54.84
Virginia	22.00	18.22	-3.78	-17.18
Washington	50.00	48.21	-1.79	-3.58
W. Virginia	40.00	33.42	-6.58	-16.45
Wisconsin	121.00	124.13	3.13	2.59
Wyoming	216.00	44.53	-171.47	-79.38
Puerto Rico	91.00	137.10	46.10	50.66

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 153 - Difference in Percentage Points of Federal and State/Local Vocational Education Expenditures for Disadvantaged Students as a Percent of Total Vocational Education Expenditures, 1970-71 to 1971-72

States	Disadvantaged Expenditures as a Percent of Total Vocational Education Expenditures		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	9.6	10.8	1.2
Alabama	8.5	6.5	-2.0
Alaska	54.5	38.1	-16.4
Arizona	10.6	7.8	-2.8
Arkansas	25.1	23.1	-2.0
California	9.6	10.3	.7
Colorado	7.9	5.4	-2.5
Connecticut	11.7	15.6	3.9
Delaware	3.7	4.7	1.0
Dist. of C.	13.1	NA	NA
Florida	13.0	12.7	-.3
Georgia	10.9	8.6	-2.3
Hawaii	8.5	9.2	.7
Idaho	4.9	6.4	1.5
Illinois	11.1	11.8	.7
Indiana	9.6	19.6	10.0
Iowa	4.1	8.4	4.3
Kansas	10.0	4.9	-5.1
Kentucky	6.6	6.7	.1
Louisiana	21.8	22.7	.9
Maine	4.0	4.9	.9
Maryland	7.0	9.3	2.3
Massachusetts	2.2	2.3	.1
Michigan	7.5	3.5	-4.0
Minnesota	5.1	5.7	.6
Mississippi	10.5	8.2	-2.3
Missouri	4.9	5.3	.4
Montana	6.0	5.2	-.8
Nebraska	7.2	10.2	3.0
Nevada	16.3	18.8	2.5
New Hampshire	8.1	12.1	4.0
New Jersey	10.8	12.3	1.5
New Mexico	33.4	25.7	-7.7
New York	16.1	17.0	.9
N. Carolina	4.4	3.3	-1.1
N. Dakota	11.9	13.0	1.1
Ohio	4.2	15.9	11.7
Oklahoma	22.8	29.6	6.8
Oregon	6.8	4.5	-2.3
Pennsylvania	7.4	8.7	1.3
Rhode Island	15.1	13.4	-1.7
S. Carolina	NA	11.5	NA
S. Dakota	23.2	25.9	2.7
Tennessee	10.3	9.7	-.6
Texas	7.2	9.7	2.5
Utah	5.8	8.2	2.4
Vermont	8.2	11.8	3.6
Virginia	20.1	21.4	1.3
Washington	7.9	1.3	-6.6
W. Virginia	11.9	10.5	-1.4
Wisconsin	4.3	4.8	.5
Wyoming	4.3	6.7	2.4
Puerto Rico	23.5	16.1	-7.4

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Federal and State/local vocational education expenditures for handicapped students, Table 154. There was 0.1 percentage point decline in the total expenditures in vocational education for handicapped persons. Twenty-six States and Puerto Rico showed percentage point increases in expenditures for handicapped persons. Twenty-one States showed decreases. Two States showed no change. For South Carolina and the District of Columbia there were no data available.

West Virginia showed the greatest percentage point increase (2.9) in total expenditures in vocational education which were spent on handicapped persons. North Dakota and Wisconsin showed no change between FY 1971 and FY 1972, thus were nearest the mean, a decrease of 0.1 percentage points. The greatest decrease (6.1 percentage points) was shown by Indiana.

During FY 1971 the State with the highest percentage of expenditures for handicapped persons was Indiana (10.1 percent). For FY 1972 Nevada was highest with 9.3 percent. The State with the lowest percentage of expenditures for handicapped persons during FY 1971 was Vermont (0.6 percent). For FY 1972, Missouri was lowest with 0.7 percent.

In explaining its increase in percentage of expenditures for handicapped persons, West Virginia said several new programs had been developed for handicapped persons. Both current allocations set aside for handicapped persons and carry-over funds from the previous year were expended in FY 1972. Wisconsin explained that its unchanging percentage was the result of a formula tied to the Federal 1968 Vocational Education Legislation. North Dakota reported that it was locked into the 3.6 percent figure, and this resulted in no change.

EXPENDITURES PER PUPIL

Per student expenditure is a function of two factors: the number of students and the amount of the expenditure. Variance in either of the factors can change the ratio, sometimes very dramatically. Furthermore, a dollar/pupil ratio does not, in itself, indicate either the number of pupils being served or the amount of dollars being appropriated, allotted, and expended. Nor does the ratio take into consideration such factors as the wealth of the agency, the proportional allotments of resources, or the variance in the pupils involved. For this reason, one is well advised to approach per pupil expenditures -- an isolated example or a contrasting table -- with a cautious attitude.

The above notwithstanding, there is an underlying assumption in the thinking of professional educators and lay people alike that for a given course of study there is an identifiable, duplicable cost per unit of time.

The reader is asked to view the related commentary and tables in the light of the foregoing paragraphs.

Table 154 - Difference in Percentage Points of Federal and State/Local Vocational Education Expenditures for Handicapped Students as a Percent of Total Vocational Education Expenditures, 1970-71 to 1971-72

States	Handicapped Expenditures as a Percent of Total Vocational Education Expenditures		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	2.6	2.5	-.1
Alabama	4.0	2.9	-1.1
Alaska	2.5	3.0	.5
Arizona	2.9	3.2	.3
Arkansas	5.5	5.6	.1
California	1.7	2.0	.3
Colorado	5.6	4.7	-.9
Connecticut	4.4	1.6	-2.8
Delaware	2.7	3.0	.3
Dist. of C.	2.9	NA	NA
Florida	2.8	3.5	.7
Georgia	2.6	3.0	.4
Hawaii	2.7	2.4	-.3
Idaho	1.7	2.0	.3
Illinois	2.2	2.4	.2
Indiana	10.1	4.0	-6.1
Iowa	3.3	2.7	-.6
Kansas	5.0	1.8	-3.2
Kentucky	2.5	2.3	-.2
Louisiana	4.2	6.8	2.6
Maine	2.1	1.5	-.6
Maryland	3.2	2.0	-1.2
Massachusetts	1.7	1.4	-.3
Michigan	2.4	.8	-1.6
Minnesota	1.3	2.2	.9
Mississippi	2.4	2.5	.1
Missouri	3.2	.7	-2.5
Montana	2.3	2.5	.2
Nebraska	2.7	4.4	1.7
Nevada	7.0	9.3	2.3
New Hampshire	6.5	4.6	-1.9
New Jersey	4.2	6.0	1.8
New Mexico	6.9	5.8	-1.1
New York	3.3	3.0	-.3
N. Carolina	1.6	1.7	.1
N. Dakota	3.6	3.6	0.0
Ohio	1.3	1.4	.1
Oklahoma	2.2	2.7	.5
Oregon	4.7	2.3	-2.4
Pennsylvania	2.1	2.3	.2
Rhode Island	2.7	1.9	-.8
S. Carolina	NA	2.9	NA
S. Dakota	4.2	4.8	.6
Tennessee	2.3	3.4	1.1
Texas	2.4	2.6	.2
Utah	3.3	2.0	-1.3
Vermont	.6	.8	.2
Virginia	2.2	2.3	.1
Washington	3.8	.9	-2.9
W. Virginia	2.7	5.6	2.9
Wisconsin	1.6	1.6	0.0
Wyoming	4.3	2.9	-1.4
Puerto Rico	2.3	3.6	1.3

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Federal expenditures per student, Table 155. The State of Pennsylvania showed the greatest increase in expenditures of Federal dollars per student trained -- from $57.00 to $84.00, an increase of $27.00, or 47.37 percent. Apparently there was a change in the way in which Federal dollars were allocated within the States. Pennsylvania officials reported that during FY 1972 their practice was to fund vocational teachers' salaries 100 percent and equipment purchases fifty percent. A closer examination revealed not only an eight million dollar increase in Federal spending in Pennsylvania, but also an enrollment decrease of 10,579.

Arkansas had a $49.00 Federal expenditure in both Fiscal years 1971 and 1972, and there was no change in either the dollar expenditure or percent change on a per pupil basis. There was an increased enrollment of over 6,000 pupils and $289,000 additional expenditures; this maintained the same pupil/dollar ratio. Officials reported that there was a formula budget.

Indiana also fell in the mid-range, but reported a $75.00 per pupil expenditure each year from Federal monies. Indiana had an increased enrollment of over 23,000 pupils and expended an additional $1,700,000 of Federal funds. The State department attributed the uniformity in expenditures to the continuance of a two-year State budget.

Vermont had the biggest negative change -- a $46.00 loss in expenditure of Federal monies per student. Although Vermont was second highest with $102.00 in FY 1971, it was in the lower half with $56.00 in FY 1972; this was a decrease of forty-five percent. The State said the total vocational enrollment was the major factor. Unfortunately, spending of Federal monies decreased by almost one-third.

Over-all, it appeared that FY 1972 Federal expenditures per pupil in vocational education improved. An average change of $4.00 was reported, from $43.00 to $47.00, for an increase of 9.30 percent. However, the increase was reported in current dollars; when constant dollars are determined there is an increase from $34.00 in 1971 to $35.00 in 1972 (actually $33.86 to $35.49) which is a change of only 4.8 percent.

Ratio of State/local vocational education expenditures to Federal expenditures, Table 156. One of the basic administrative principles in the finance of vocational education is that Federal monies are essential to promote, extend, and maintain State and local programs. A corollary principle is that Federal monies are to be matched with State and local monies. For many years, the State and local part of the matching has significantly exceeded that of the Federal.

Table 156 first depicts the matching ratio which resulted from expenditures during FY 1971 and FY 1972. The change in the matching is depicted both in dollars/cents and as a percent of change from FY 1971 to FY 1972.

Table 155 - Difference in Federal Expenditures per Student and Percent of Change of Federal Expenditures per Student in Vocational Education, 1970-71 to 1971-72

States	Federal Expenditures per Student in Vocational Education		Dollar Difference for Federal Expenditures per Student in Vocational Education FY 1971 & 1972	Percent of Change FY 1971 & 1972
	1970-71	1971-72		
U.S. TOTAL	$43	$47	$4	9.30
Alabama	61	66	5	8.20
Alaska	58	44	-14	-24.14
Arizona	44	42	-2	-4.55
Arkansas	49	49	0	0.00
California	24	31	7	29.17
Colorado	46	48	2	4.35
Connecticut	36	30	-6	-16.67
Delaware	36	32	-4	-11.11
Dist. of C.	151	NA	NA	NA
Florida	27	29	2	7.41
Georgia	43	53	10	23.26
Hawaii	43	56	13	30.23
Idaho	60	73	13	21.67
Illinois	31	33	2	6.45
Indiana	75	75	0	0.00
Iowa	39	47	12	20.51
Kansas	49	53	4	8.16
Kentucky	44	56	12	27.27
Louisiana	51	60	9	17.65
Maine	101	87	-14	-13.86
Maryland	45	43	-2	-4.44
Massachusetts	79	62	-17	-21.52
Michigan	47	37	-10	-21.28
Minnesota	36	38	2	5.56
Mississippi	56	68	12	21.43
Missouri	64	62	-2	-3.13
Montana	69	68	-1	-1.45
Nebraska	46	54	8	17.39
Nevada	51	58	7	13.73
New Hampshire	69	67	-2	-2.90
New Jersey	41	44	3	7.32
New Mexico	57	62	5	8.77
New York	44	45	1	2.27
N. Carolina	33	36	3	9.09
N. Dakota	69	65	-4	-5.80
Ohio	53	54	1	1.89
Oklahoma	55	73	18	32.73
Oregon	41	42	1	2.44
Pennsylvania	57	84	27	47.37
Rhode Island	68	88	20	29.41
S. Carolina	76	92	16	21.05
S. Dakota	84	96	12	14.29
Tennessee	59	63	4	6.78
Texas	36	42	6	16.67
Utah	27	31	4	14.81
Vermont	102	56	-46	-45.10
Virginia	40	45	5	12.50
Washington	31	36	5	16.13
W. Virginia	70	83	13	18.57
Wisconsin	44	36	-8	-18.18
Wyoming	68	48	-20	-29.41
Puerto Rico	70	99	29	41.43

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 156 - Difference in Ratio of State/Local Vocational Education Expenditures to Federal Expenditures and Percent of Change in Ratio of State and Local Expenditures to Federal Expenditures for Vocational Education, 1970-71 to 1971-72

States	Ratio of State & Local Vocational Education Expenditures to Federal Expenditures for Vocational Education		Dollar Difference of Ratio of State/Local Expenditures to Federal Expenditures FY 1971 & 1972	Percent of Change FY 1971 & 1972
	1970-71	1971-72		
U.S. TOTAL	$5.09:1	$4.71:1	-.38	-7.47
Alabama	3.01:1	2.64:1	-.37	-12.29
Alaska	4.30:1	4.45:1	.15	3.49
Arizona	2.61:1	3.14:1	.53	20.31
Arkansas	1.72:1	2.01:1	.29	16.86
California	7.25:1	5.92:1	-1.33	-18.34
Colorado	4.34:1	4.90:1	.56	12.90
Connecticut	6.75:1	9.10:1	2.35	34.81
Delaware	5.49:1	6.24:1	.75	13.66
Dist. of C.	1.31:1	NA	NA	NA
Florida	5.24:1	5.39:1	.15	2.86
Georgia	3.15:1	2.42:1	-.73	-23.17
Hawaii	3.29:1	2.45:1	-.84	-25.53
Idaho	2.42:1	2.02:1	-.40	-16.53
Illinois	9.80:1	8.53:1	-1.27	-12.96
Indiana	1.84:1	2.08:1	.24	13.04
Iowa	5.25:1	4.46:1	-.79	-15.05
Kansas	2.55:1	2.75:1	.20	7.84
Kentucky	3.36:1	2.71:1	-.65	-19.35
Louisiana	1.60:1	2.07:1	.47	29.38
Maine	3.26:1	5.12:1	1.86	57.06
Maryland	7.80:1	8.49:1	.69	8.85
Massachusetts	11.54:1	11.58:1	.04	.35
Michigan	2.45:1	3.26:1	.81	33.06
Minnesota	5.11:1	5.29:1	.18	3.52
Mississippi	2.65:1	2.55:1	-.10	-3.77
Missouri	2.92:1	3.51:1	.59	20.21
Montana	2.57:1	2.93:1	.36	14.01
Nebraska	2.68:1	2.39:1	-.29	-10.82
Nevada	3.02:1	2.57:1	-.45	-14.90
New Hampshire	2.62:1	3.44:1	.82	31.30
New Jersey	2.26:1	2.13:1	-.13	-5.75
New Mexico	2.15:1	2.13:1	-.02	-.93
New York	8.86:1	8.72:1	-.14	-1.58
N. Carolina	5.48:1	5.33:1	-.15	-2.74
N. Dakota	2.14:1	1.85:1	-.29	-13.55
Ohio	7.85:1	5.18:1	-2.67	-34.01
Oklahoma	3.76:1	2.67:1	-1.09	-28.99
Oregon	4.42:1	4.28:1	-.14	-3.17
Pennsylvania	6.81:1	5.22:1	-1.59	-23.35
Rhode Island	4.08:1	4.03:1	-.05	-1.23
S. Carolina	1.94:1	1.64:1	-.30	-15.46
S. Dakota	1.58:1	1.55:1	-.03	-1.90
Tennessee	2.76:1	3.21:1	.45	16.[illegible]
Texas	4.07:1	3.97:1	-.10	-2.46
Utah	5.35:1	4.94:1	-.41	-7.66
Vermont	7.46:1	8.81:1	1.35	18.10
Virginia	3.01:1	2.67:1	-.34	-11.30
Washington	5.05:1	4.95:1	-.10	-1.98
W. Virginia	1.72:1	1.77:1	.05	2.91
Wisconsin	6.63:1	6.78:1	.15	2.26
Wyoming	3.85:1	4.47:1	.62	16.10
Puerto Rico	1.85:1	1.82:1	-.03	-1.62

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

In FY 1971, each $1.00 of Federal money expended was matched by $5.09 of State and local monies. In FY 1972, the State and local matching decreased by $0.38 (7.47 percent) to $4.71. This was the national average for fifty States and Puerto Rico; no data were available for the District of Columbia. Twenty-three States increased their matching ratio while ratios for twenty-seven States and Puerto Rico decreased. There were no States whose ratio remained unchanged.

Connecticut's ratio had the greatest dollar increase -- from $6.75 to $9.10. That is, Connecticut expended an additional $2.35 of State and local monies for each Federal dollar expended. Ohio's ratio had the greatest dollar decrease -- from $7.85 to $5.18, or a $2.67 decline. Falling closet to the mean of $0.38 decrease was Alabama ($3.01 to $2.64, or $0.37).

Maine's ratio had the greatest increase in percent of change from FY 1971 to FY 1972 -- from a $3.26 expenditure to a $5.12 expenditure, or an increase of 57.06 percent. The change occurred as a result of a State and local expenditure increase from $7.8 million in FY 1971 to $13.2 million in FY 1972, approximately $5.4 million. Ohio had the greatest decrease in percent of change -- from $7.85 to $5.18, or 34.01 percent. The decline resulted from an increase of $1.6 million of Federal monies and a decrease of $47 million of State and local monies. Utah was nearest the mean (decline of 7.47 percent) with a decline of 7.66 percent.

Ohio, where State and local expenditures have increased over 200 percent in the last five years, reported that in FY 1971 there were substantial monies available from State bond issues which were matched by local monies. The result was an uncharacteristic "peak" year. An examination of fiscal data on past years revealed the following: 1968/$37.3 million; 1969/$42.3 million; 1970/$87.5 million; 1971/$163.7 million; 1972/$116.6 million.

Both Connecticut and Maine reported that their rises in State and local expenditures may have resulted from more accurate local reporting of expenditures. Furthermore, Maine stated that high expenditures continued for construction.

EXPENDITURES RELATED TO EDUCATIONAL LEVELS

Within the States, Federal monies are mixed with State and local monies to finance the operation of vocational education programs. Traditionally, the identity of the sources of the funds has been maintained, at least to the point that Federal funds can be identified, by an audit. In recent years, Federal reporting procedures have no longer included the requirement that States report in a fashion distinguishing State monies from local monies. Dropping the requirement seems unfortunate; it made possible examination and analyses which are certainly essential to displaying practices followed within States, and which might be useful in identifying exemplary practices.

The three tables which follow display the percentages of Federal monies which the States have expended at the secondary, post-secondary, and adult levels. The first two columns show the percent of the total Federal funds for each grade level which was expended by the States in FY 1971 and FY 1972. The third column shows the change, either increase or decrease, in the percentage points. A positive percentage point change means that a State spent that increased percentage of its Federal monies for the given level of vocational education. A negative percentage point change reflects a decreased percentage of expenditure by the State.

Federal expenditures for secondary vocational education, Table 157. For the Nation as a whole there was no significant change in the percent of Federal vocational education monies being spent on the secondary level. In FY 1972 the figure was 63.3 percent, a rise of 0.3 percentage points. Twenty-nine States increased their percentage; twenty States and Puerto Rico decreased their percentage; Missouri showed no change; and for the District of Columbia there were no data available.

Of the ten States that show a difference of ten percentage points or more between FY 1971 and FY 1972, three decreased (Montana, New York, and Utah) and seven increased (Alaska, Georgia, Louisiana, Maryland, Minnesota, Pennsylvania, and West Virginia). The greatest increase in percentage points was shown by West Virginia, 14.3. The largest decrease in percentage points was shown by Utah, 13.9. With an increase of 0.3 percentage points, California was at the arithmetic mean.

West Virginia officials explained that high construction costs associated with the completion of several facilities were met by expenditures of Federal monies. This resulted in that State showing the greatest increase in percentage points. This was in part because Appalachia funds, about $6 million, were used in vocational education facilities construction; these Appalachia expenditures were reported on USOE/VE forms.

Federal expenditures for post-secondary vocational education, Table 158. In FY 1972, seventeen States showed an increased percentage of Federal funds expended at the post-secondary level. Thirty-one States and Puerto Rico showed reduced percentages. Florida and Massachusetts showed no change. For the District of Columbia there were no data.

There was an over-all percentage point decrease, 1.6, of the percent of Federal monies expended at the post-secondary level. Montana showed the greatest increase (12.2 percentage points) in the percentage spent for post-secondary vocational education. Michigan and New Jersey fell at the mean change in percentage expenditures, -1.7 and -1.5 percentage points respectively. Louisiana showed the largest decrease, 17.5 percentage points.

Montana reported that the expansion of five vocational-technical centers using substantial amounts of Federal funds accounted for its large increase. Florida, in commenting on its lack of change, said Part B funds were used on a formula basis of percent required.

Table 157 - Difference in Percentage Points of Federal Expenditures for Secondary Vocational Education as a Percent of Total Federal Expenditures for all Vocational Education, 1970-71 to 1971-72

States	Secondary Vocational Education Expenditures as a Percent of Total Federal Expenditures		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	63.0	63.3	.3
Alabama	86.5	81.6	-4.9
Alaska	68.3	78.5	10.2
Arizona	59.5	59.7	.2
Arkansas	52.3	52.5	.2
California	59.3	59.6	.3
Colorado	52.7	61.0	8.3
Connecticut	65.1	60.7	-4.4
Delaware	87.3	85.1	-2.2
Dist. of C.	[illegible]7.9	NA	NA
Florida	66.9	66.7	-.2
Georgia	42.0	53.1	11.1
Hawaii	37.6	39.9	2.3
Idaho	42.3	41.2	-1.1
Illinois	72.3	74.1	1.8
Indiana	83.5	80.2	-3.3
Iowa	30.9	30.8	-.1
Kansas	59.7	57.2	-2.5
Kentucky	65.1	57.5	-7.6
Louisiana	52.1	65.4	13.3
Maine	72.7	65.9	-6.8
Maryland	69.7	82.8	13.1
Massachusetts	85.0	81.2	-3.8
Michigan	73.8	75.6	1.8
Minnesota	25.8	36.7	10.9
Mississippi	52.1	60.7	8.6
Missouri	76.7	76.7	0.0
Montana	59.8	49.3	-10.5
Nebraska	61.9	70.8	8.9
Nevada	72.7	74.4	1.7
New Hampshire	71.5	75.7	4.2
New Jersey	83.3	84.3	1.0
New Mexico	62.1	60.7	-1.4
New York	62.0	50.4	-11.6
N. Carolina	67.5	67.4	-.1
N. Dakota	59.6	60.3	.7
Ohio	65.6	57.7	-7.9
Oklahoma	62.2	67.8	5.6
Oregon	49.1	53.3	4.2
Pennsylvania	67.7	78.3	10.6
Rhode Island	72.0	75.0	3.0
S. Carolina	82.9	87.0	4.1
S. Dakota	60.7	62.7	2.0
Tennessee	47.8	53.7	5.9
Texas	48.1	51.4	3.3
Utah	65.5	51.6	-13.9
Vermont	90.3	85.4	-4.9
Virginia	71.1	72.2	1.1
Washington	40.9	37.4	-3.5
W. Virginia	64.8	79.1	14.3
Wisconsin	42.8	40.6	-2.2
Wyoming	61.8	63.1	1.3
Puerto Rico	64.8	58.5	-6.3

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Table 158 - Difference in Percentage Points of Federal Expenditures for Post-Secondary Vocational Education as a Percent of Total Federal Expenditures for All Vocational Education, 1970-71 to 1971-72

States	Post-Secondary Vocational Education Expenditures as a Percent of Total Federal Expenditures		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	27.9	26.3	-1.6
Alabama	7.1	17.0	9.9
Alaska	23.2	14.3	-8.9
Arizona	26.0	24.1	-1.9
Arkansas	44.0	43.5	-.5
California	31.0	30.3	-.7
Colorado	43.9	34.8	-9.1
Connecticut	12.8	13.8	1.0
Delaware	9.0	14.9	5.9
Dist. of C.	13.8	NA	NA
Florida	30.5	30.5	0.0
Georgia	53.8	44.1	-9.7
Hawaii	60.7	57.5	-3.2
Idaho	55.7	57.0	1.3
Illinois	18.7	17.6	-1.1
Indiana	12.4	15.3	2.9
Iowa	59.3	63.3	4.0
Kansas	33.6	33.9	.3
Kentucky	25.4	34.6	9.2
Louisiana	41.0	23.5	-17.5
Maine	25.9	29.2	3.3
Maryland	25.4	14.6	-10.8
Massachusetts	13.5	13.5	0.0
Michigan	21.7	20.0	-1.7
Minnesota	67.8	57.3	-10.5
Mississippi	41.7	34.1	-7.6
Missouri	19.5	18.7	-.8
Montana	37.9	50.1	12.2
Nebraska	34.2	26.3	-7.9
Nevada	16.9	16.0	-.9
New Hampshire	16.3	9.3	-7.0
New Jersey	14.9	13.4	-1.5
New Mexico	33.1	34.6	1.5
New York	13.7	11.6	-2.1
N. Carolina	32.5	32.6	.1
N. Dakota	35.4	29.2	-6.2
Ohio	14.4	14.7	.3
Oklahoma	29.4	25.1	-4.3
Oregon	42.6	41.8	-.8
Pennsylvania	26.1	17.4	-8.7
Rhode Island	13.7	10.4	-3.3
S. Carolina	14.7	11.4	-3.3
S. Dakota	35.7	34.9	-.8
Tennessee	47.1	37.6	-9.5
Texas	34.7	34.6	-.1
Utah	27.4	37.1	9.7
Vermont	9.7	14.5	4.8
Virginia	25.8	25.4	-.4
Washington	52.5	54.4	1.9
W. Virginia	22.2	14.7	-7.5
Wisconsin	31.2	31.9	.7
Wyoming	34.5	34.4	-.1
Puerto Rico	24.2	23.2	-1.0

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

Federal expenditures for adult vocational education, Table 159. For FY 1972 there was a 1.2 percentage point increase in the percent of Federal vocational education expenditures used for adult vocational education. Twenty-five States decreased their percentages. North Carolina and Vermont showed no change. Twenty-three States and Puerto Rico showed increases. For the District of Columbia there were no data.

Table 159 - Difference in Percentage Points of Federal Expenditures for Adult Vocational Education as a Percent of Total Federal Expenditures for all Vocational Education, 1970-71 to 1971-72

States	Adult Vocational Education Expenditures as a Percent of Total Federal Expenditures		Difference in Percentage Points FY 1971 & FY 1972
	1970-71	1971-72	
U.S. TOTAL	8.3	9.5	1.2
Alabama	6.5	1.5	-5.0
Alaska	8.5	7.0	-1.5
Arizona	14.6	16.2	1.6
Arkansas	3.7	4.0	.3
California	9.7	10.1	.4
Colorado	3.4	4.2	.8
Connecticut	5.7	8.2	2.5
Delaware	3.7	0.0	-3.7
Dist. of C.	8.3	NA	NA
Florida	2.7	2.9	.2
Georgia	4.2	2.9	-1.3
Hawaii	1.7	2.6	.9
Idaho	2.0	1.9	-.1
Illinois	9.0	8.3	-.7
Indiana	4.1	4.5	.4
Iowa	9.8	5.9	-3.9
Kansas	6.7	8.8	2.1
Kentucky	9.5	8.0	-1.5
Louisiana	6.9	11.1	4.2
Maine	1.4	4.9	3.5
Maryland	4.9	2.6	-2.3
Massachusetts	1.5	5.3	3.8
Michigan	4.5	4.4	-.1
Minnesota	6.3	6.0	-.3
Mississippi	6.2	5.2	-1.0
Missouri	3.7	4.6	.9
Montana	2.3	.6	-1.7
Nebraska	4.0	3.0	-1.0
Nevada	7.5	9.7	2.2
New Hampshire	12.2	15.0	2.8
New Jersey	1.9	2.4	.5
New Mexico	4.8	4.7	-.1
New York	15.7	28.1	12.4
N. Carolina	0.0	0.0	0.0
N. Dakota	5.0	10.5	5.5
Ohio	20.1	27.5	7.4
Oklahoma	8.3	7.2	-1.1
Oregon	8.3	4.9	-3.4
Pennsylvania	6.4	4.3	-2.1
Rhode Island	14.4	14.5	-.1
S. Carolina	2.5	1.6	-.9
S. Dakota	3.6	2.3	-1.3
Tennessee	5.1	8.7	3.6
Texas	17.2	14.0	-3.2
Utah	7.1	11.4	4.3
Vermont	0.0	0.0	0.0
Virginia	3.1	2.5	-.6
Washington	6.6	8.2	1.6
W. Virginia	12.3	6.2	-6.1
Wisconsin	26.0	27.5	1.5
Wyoming	3.7	2.5	-1.2
Puerto Rico	10.0	18.3	8.3

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971 and FY 1972.

New York had the greatest increase in the percentage of Federal expenditures for adult vocational education, 12.4 percentage points. Wisconsin fell nearest the mean of 1.2 percentage points with an increase of 1.5 percentage points, and West Virginia had the biggest decline, 6.1 percentage points.

Michigan, which had a 0.1 percentage point decrease, reported that adult continuing education was in the process of change and, with the responsibility not defined in their State, officials were holding the line on expenditures. Idaho, with the same change, reported stabilized Federal funding in adult education; officials were increasing the use of State funds. Wyoming, which had a decline of 1.2 percentage points, reported that the State was increasingly funding through a Department of Adult Basic and Continuing Education, and that there was less necessity for adult training. West Virginia reported that larger sums of State and local monies were channelled into adult programs to maintain average per pupil expenditures.

SUMMARY

Enrollment

Total enrollment in vocational education increased 9.25 percent between Fiscal years 1971 and 1972. This increase in enrollment was 6.2 times greater than the general population increase of 1.5 percent.

All levels of vocational education -- secondary, post-secondary, and adult -- showed substantial increases in enrollment. Secondary vocational education showed an enrollment increase of 9.05 percent over the previous year and reached 2.9 percentage points more of the 15-19 year age group in FY 1972. Post-secondary vocational education had an enrollment increase of 14.28 percent, yet reached only 1.2 percentage points more of the 20-24 year age group than in FY 1971. Adult vocational education enrollment increased 7.59 percent, while reaching only an additional 0.3 percentage points of the population 25-64 years of age.

The enrollment of disadvantaged persons increased slightly, 0.7 percentage points. The percent of handicapped persons enrolled howed no change at all.

There was a decrease of 2.4 percentage points in the enrollment of students in secondary cooperative vocational education. This decline occurred even though most vocational educators acknowledge that cooperative vocational education is potentially the most effective approach to training.

Increases in enrollment in the work study program at the secondary school level were parallel to that of enrollment in all secondary vocational education; therefore, there was no increase in the percent of work study as a part of the total secondary enrollment in vocational education.

No major shifts occurred in the percentages of students enrolled in each of the occupational areas in vocational education. Most percentage changes were less than one percentage point. Only consumer and homemaking (1.1 percentage point decrease) and trade and industrial (1.2 percentage point increase) changed to a greater degree.

Regarding the percentage of minority students enrolled, there was one change that was marked -- Negro enrollment, which declined 2.34 percentage points. Changing substantially less was American Indian enrollment, which increased 0.35 percentage points. Oriental enrollment increased 0.30 percentage points. Enrollment of persons having Spanish surnames increased by 0.17 percentage points.

Expenditures

Total expenditures, including Federal, State, and local monies, increased an average of $3.85 per student for all levels of vocational education in Fiscal year 1972 over Fiscal year 1971; this was an increase of 1.47 percent. For secondary vocational education, the increase was $10.47 per student, or 3.49 percent. For post-secondary vocational education, the increase was $3.15 per pupil, or 0.59 percent. For adults in vocational education, per student expenditures decreased $10.51, or 14.01 percent.

The percent of expenditures for disadvantaged students increased an average of 1.2 percentage points. The percent of expenditures for handicapped students decreased by 0.1 percentage points.

Expenditure of Federal monies increased from nearly $395 million in Fiscal year 1971 to $464 million in Fiscal year 1972. The Federal expenditure, when divided by the enrollment, yielded a per pupil expenditure of about $47.00, which was an increase of $4.00, or 9.3 percent, over Fiscal year 1971.

The matching ratio of State and local dollars to Federal dollars was $4.71:1 in Fiscal year 1972, a decrease in State and local matching of $0.38, or 7.5 percent, from Fiscal year 1971.

In Fiscal year 1972, expenditures of Federal funds for vocational education varied for the three levels. For secondary vocational education, the increase was 0.3 percentage points, to 63.3 percent of the total expenditure of Federal funds. For post-secondary vocational education, the percent of expenditures of Federal funds decreased 1.6 percentage points to 26.3 percent. For adult vocational education, the expenditure of Federal funds was 9.5 percent of the total, an increase of 1.2 percentage points.

Chapter V

OCCUPATIONALLY REPORTED TRAINING PROGRAMS ADMINISTERED BY THE U.S. DEPARTMENT OF LABOR

Fiscal Year 1972

A wide variety of training programs, job-entry programs, and trainee-support programs are administered by the U.S. Department of Labor (USDL). While the Department of Labor has been involved in training for many years through programs such as those for apprentices, the heavy involvement has come since the passage of the Area Redevelopment Act in 1961. Two major pieces of legislation since then which have further involved the Department of Labor are the Manpower Development and Training Act (MDTA) and the Economic Opportunity Act (EOA), both as amended.

The best data available on Department of Labor training are released in the spring of each year, in the Department's _Manpower Report of the President_. While these Manpower Reports are the most comprehensive documents available, the most informative about manpower training, and the most widely available source, they continue to be broad in their focus. Data on trainees and trainee support are broad. Consequently, it is not possible for an interested person -- layman, educator, or Congressman -- to use these reports to find detailed, comprehensive data on enrollment, expenditures, successes, failures, trends, or needs of these programs.

In an effort to present a more complete picture of occupational training in the United States, Project Baseline has included a chapter on Department of Labor programs in each of the annual reports. Securing detailed data has been difficult and only partially successful.

The data on enrollment reported herein were made available by the U.S. Department of Labor, Manpower Administration, Office of Administration and Management in Washington, D.C. Enrollments reported here are those received by the Department as forwarded from State offices of manpower programs and were tabulated from enrollments in training areas using Dictionary of Occupational Titles (DOT) code numbers.

It is recognized that the Manpower enrollment figures reported occupationally are less than the actual number of persons enrolled. Many people, especially in programs such as WIN and CEP, receive guidance and counseling, basic education and other supportive services and may, or may not, receive occupational training following these services. As occupational training is tabulated from enrollment forms, these people may not be counted occupationally even when they do receive training. However, because the computerized report (Table 6) provided Project Baseline by the Office of Administration and Management provides the only figures available on which to base the impact of Manpower training, it must be accepted. As there is also a lack of actual expenditure figures available, cost per trainee can only be arrived at by dividing the known allocation for a program by the number of trainees reported in that program.

ENROLLMENT

The figures for the numbers of persons receiving training and support as reported in Project Baseline are enrollments, and are not to be, confused with "training positions open or available", as reported in other publications. Further, the enrollment figures are for Fiscal year 1972 only and are not cumulative figures for several years, as reported elsewhere. They are only those enrollment figures that were reported to the U.S. Department of Labor by DOT code.

Enrollment in all training programs administered by the U.S. Department of Labor. The U.S. Department of Labor has had the highest responsibility for administering programs under the Manpower Development and Training Act since passage of the original legislation. More recently, responsibility for administering certain programs funded under the Economic Opportunity Act has been delegated to the U.S. Department of Labor.

Enrollment in all MDTA and EOA programs. The total enrollment in U.S. Department of Labor occupationally reported training programs was 346,066. Of this total 209,269 persons were enrolled under the Manpower Development and Training Act, and 136,797 persons were enrolled under the Economic Opportunity Act; see Table 160.

The State with the greatest number of persons enrolled in all of the above categories was California, with 21,831 persons enrolled under EOA and 21,032 persons enrolled under MDTA, for a total of 42,863. The State with the lowest number of persons enrolled was Wyoming, with 213 persons under EOA, and 518 persons under MDTA, for a total of 731 enrolled.

Enrollment in Manpower Development and Training Act programs. The total enrollment in the U.S. Department of Labor occupationally reported MDTA programs was 209,269; see Table 161. Under this broad title five programs are reported on which data were available. Brief description of the programs are found in the following paragraphs.

Manpower Institutional (MDTA/Institutional) program. This program, for unemployed and underemployed persons, is operated through contracts with educational institutions for classroom, shop, and laboratory instruction.

Manpower On-the-Job Training (MDTA/OJT) program. As the name suggests, this program uses an on-the-job approach to training to help the unemployed gain job skills and the underemployed to upgrade their skills.

Manpower Part-time (MDTA Part-time) program. This program provides training for persons sixteen years of age or older already working but underemployed. Training is mainly in job-related

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Table 160 - Enrollment in U.S. Department of Labor Training Programs, 1971-72

States	Enrollment in USDL Training Programs	Manpower Development & Training Act Enrollment	Economic Opportunity Act Enrollment
U.S. TOTAL	346,066	209,269	136,797
Alabama	5,791	3,603	2,188
Alaska	1,735	851	884
Arizona	5,023	2,166	2,857
Arkansas	5,114	2,965	2,149
California	42,863	21,032	21,831
Colorado	4,264	3,036	1,228
Connecticut	4,682	2,976	1,706
Delaware	929	739	190
Dist. of C.	2,608	1,077	1,531
Florida	8,790	4,176	4,614
Georgia	6,729	5,198	1,531
Hawaii	1,896	985	911
Idaho	1,642	884	758
Illinois	10,591	7,565	3,026
Indiana	5,255	3,156	2,099
Iowa	4,567	3,455	1,112
Kansas	5,190	3,841	1,349
Kentucky	6,253	2,763	3,490
Louisiana	4,534	2,914	1,620
Maine	2,404	1,582	822
Maryland	5,478	3,049	2,429
Massachusetts	8,830	3,914	4,916
Michigan	11,119	7,182	3,937
Minnesota	6,976	4,463	2,513
Mississippi	6,481	3,888	2,593
Missouri	9,083	5,947	3,136
Montana	1,589	815	774
Nebraska	2,369	1,712	657
Nevada	1,234	715	519
New Hampshire	1,128	753	375
New Jersey	11,089	7,226	3,863
New Mexico	3,159	1,578	1,581
New York	20,736	13,520	7,216
N. Carolina	9,802	6,838	2,964
N. Dakota	1,094	782	312
Ohio	13,253	9,794	3,459
Oklahoma	6,748	4,525	2,223
Oregon	4,070	2,270	1,800
Pennsylvania	16,561	9,948	6,613
Rhode Island	1,609	733	876
S. Carolina	6,053	3,527	2,526
S. Dakota	1,457	779	678
Tennessee	8,182	5,205	2,977
Texas	20,699	12,681	8,018
Utah	2,588	1,350	1,238
Vermont	1,571	1,021	550
Virginia	5,373	3,561	1,812
Washington	8,223	6,002	2,221
W. Virginia	3,640	1,611	2,029
Wisconsin	8,044	5,578	2,466
Wyoming	731	518	213
Guam	286	178	108
Puerto Rico	3,204	2,201	1,003
Virgin Isl.	249	198	51
Unident. States	2,498	243	2,255

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 161 - Enrollment in U.S. Department of Labor Occupationally Reported Manpower Development and Training Act Programs, 1971-72

States	Enrollment in USDL Occupationally Reported Manpower Training Act Programs 1971-72	MDTA Institutional	MDTA On-Job-Training	MDTA Part-time	MDTA JOP Entry	MDTA JOP Upgrade
U.S. TOTAL	209,269	132,736	16,560	4,373	51,152	4,448
Alabama	3,603	2,066	360	43	1,110	24
Alaska	851	642	15	2	175	17
Arizona	2,166	1,515	40	76	524	11
Arkansas	2,965	1,790	181	0	994	0
California	21,032	12,756	724	317	6,808	427
Colorado	3,036	2,295	142	79	471	49
Connecticut	2,976	1,952	242	129	558	95
Delaware	739	631	8	0	90	10
Dist. of C.	1,077	893	156	0	12	16
Florida	4,176	3,129	194	0	775	78
Georgia	5,198	2,912	746	79	1,331	130
Hawaii	985	841	28	0	111	5
Idaho	884	642	79	0	161	2
Illinois	7,565	5,279	598	94	1,413	181
Indiana	3,156	2,309	599	0	234	14
Iowa	3,455	2,254	202	69	915	15
Kansas	3,841	3,029	68	17	669	58
Kentucky	2,763	1,839	242	0	679	3
Louisiana	2,914	1,602	250	83	946	33
Maine	1,582	765	307	47	452	11
Maryland	3,049	1,542	546	191	694	76
Massachusetts	3,914	2,560	607	0	725	22
Michigan	7,182	5,457	665	195	795	70
Minnesota	4,463	2,382	358	0	1,582	141
Mississippi	3,888	1,620	736	59	1,399	74
Missouri	5,947	3,582	504	3	1,708	150
Montana	815	559	135	3	109	9
Nebraska	1,712	1,164	105	0	433	10
Nevada	715	309	146	0	220	40
New Hampshire	753	527	33	0	192	1
New Jersey	7,226	4,725	382	31	2,083	5
New Mexico	1,578	892	187	27	454	18
New York	13,520	6,265	1,098	24	5,399	734
N. Carolina	6,838	5,320	380	0	979	159
N. Dakota	782	567	31	0	179	5
Ohio	9,794	6,369	1,246	1	1,815	363
Oklahoma	4,525	3,200	78	147	1,074	26
Oregon	2,270	1,496	13	124	594	43
Pennsylvania	9,948	6,830	828	203	1,936	151
Rhode Island	733	599	27	0	101	6
S. Carolina	3,527	1,775	209	115	1,272	156
S. Dakota	779	355	142	116	162	4
Tennessee	5,205	3,138	528	1	1,604	134
Texas	12,681	7,938	476	1,590	2,578	99
Utah	1,350	813	179	115	242	1
Vermont	1,021	594	25	147	237	18
Virginia	3,561	2,471	436	23	554	77
Washington	6,002	4,191	332	108	1,228	143
W. Virginia	1,611	577	368	0	533	133
Wisconsin	5,578	3,676	329	104	1,205	264
Wyoming	518	314	26	0	168	10
Guam	178	178	0	0	0	0
Puerto Rico	2,201	1,267	195	6	608	125
Virgin Islands	198	196	0	2	0	0
Unident. States	243	147	29	3	62	2

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

requirements such as communications skills, work habits, and interpersonal relations.

Job Opportunities in Business Optional Program (JOP Entry). This is the application of the JOBS program from business and industry into the public sector. Public agencies are encouraged to employ disadvantaged persons in entry-level positions and to provide on-the-job training.

Job Opportunities in Business Optional Program (JOP Upgrade). This is a narrowly focused program, mainly for Civil Service positions, promoting the upgrading of disadvantaged persons. The program utilizes informal means of screening disadvantaged applications for entry-level and promotion-level advancement tests.

The total enrollment for MDTA, the total enrollment for each of the five programs, and the States with the high and low enrollment are as follows:

Program	High	Low	Program Total
MDTA Institutional	12,756 (California)	309 (Nevada)	132,736
MDTA On-the-Job	1,246 (Ohio)	8 (Delaware)	16,560
MDTA Part-Time	1,590 (Texas)	0 (17 States)	4,373
MDTA JOP Entry	6,808 (California)	90 (Delaware)	51,152
MDTA JOP Upgrade	734 (New York)	0 (Arkansas)	4,448
TOTAL MDTA ENROLLMENT			209,269

Enrollment in Economic Opportunity Act Programs. The total enrollment during Fiscal year 1972 was 136,797; see Table 162. There are six program areas on which enrollment data are available. Brief descriptions of the programs are found in the paragraphs which follow.

Work Incentive program (WIN). This program provides job training for employable welfare recipients to help them become economically independent.

Concentrated Employment Program (CEP). This program provides a one-step service in manpower and related programs for disadvantaged persons who live in areas of high unemployment. The one-step may be job placement, prevocational orientation, or institutional training.

Neighborhood Youth Corps/Out of School (NYC/OS). This is a program for youths fourteen through twenty-one years of age which provides work opportunities out of school and during the summer.

Table 162 - Enrollment in U.S. Department of Labor Occupationally Reported Economic Opportunity Act Programs, 1971-72

States	Enrollment in USDL Occupationally Reported Economic Opportunity Act Programs, 1971-72	Work Incentive Program Enrollment	Concentrated Employment Program Enrollment	Neighborhood Youth Corps Enrollment[1]	Operation Mainstream Enrollment	Public Service Careers Enrollment[2]	New Careers Enrollment
U.S. TOTAL	136,797	37,360	42,442	38,110	10,302	7,277	1,306
Alabama	2,188	172	527	1,112	333	43	1
Alaska	884	259	1	199	407	5	13
Arizona	2,857	338	1,577	455	231	256	0
Arkansas	2,149	212	517	949	174	237	60
California	21,831	15,083	1,926	3,562	493	540	227
Colorado	1,228	489	295	220	24	200	0
Connecticut	1,706	792	586	154	42	121	11
Delaware	190	55	1	116	1	17	0
Dist. of C.	1,531	74	716	582	51	106	2
Florida	4,614	1,385	1,861	999	177	160	32
Georgia	1,531	292	480	541	104	114	0
Hawaii	911	203	227	330	82	69	0
Idaho	758	303	0	239	184	32	0
Illinois	3,026	106	1,169	1,174	256	316	5
Indiana	2,099	182	335	1,041	325	216	0
Iowa	1,112	135	532	298	116	31	0
Kansas	1,349	299	0	402	77	571	0
Kentucky	3,490	350	1,470	1,060	517	93	0
Louisiana	1,620	165	324	944	111	71	5
Maine	822	151	482	131	58	0	0
Maryland	2,429	268	1,056	700	97	287	1
Massachusetts	4,916	1,336	2,847	339	186	149	59
Michigan	3,937	1,256	735	930	834	181	1
Minnesota	2,513	998	841	426	191	39	18
Mississippi	2,593	183	905	1,150	227	128	0
Missouri	3,136	219	2,019	569	245	72	12
Montana	774	101	245	100	171	156	1
Nebraska	657	58	425	48	65	61	0
Nevada	519	16	295	179	29	0	0
New Hampshire	375	36	253	53	33	0	0
New Jersey	3,863	404	2,344	633	268	199	15
New Mexico	1,581	116	837	406	137	64	21
New York	7,216	2,073	1,638	2,993	211	289	12
N. Carolina	2,964	151	1,354	951	184	115	209
N. Dakota	312	67	1	166	78	0	0
Ohio	3,459	931	961	1,210	259	97	1
Oklahoma	2,223	182	682	869	413	77	0
Oregon	1,800	974	212	316	100	198	0
Pennsylvania	6,613	1,605	2,910	1,444	280	260	114
Rhode Island	876	390	359	67	17	43	0
S. Carolina	2,526	110	1,238	778	171	107	122
S. Dakota	678	79	7	289	214	86	3
Tennessee	2,977	202	1,351	1,006	283	67	68
Texas	8,018	255	3,640	3,425	534	139	25
Utah	1,238	791	3	172	58	212	2
Vermont	550	320	0	102	37	54	37
Virginia	1,812	123	637	602	197	71	182
Washington	2,221	725	212	800	224	256	4
W. Virginia	2,029	1,150	1	626	40	174	38
Wisconsin	2,466	529	1,340	337	69	191	0
Wyoming	213	77	0	90	43	3	0
Guam	108	6	0	80	0	22	0
Puerto Rico	1,003	455	0	435	45	68	0
Virgin Islands	51	5	0	46	0	0	0
Unident. States	2,255	104	68	1,265	599	214	5

[1] This includes NYC/Out of School only.
[2] This includes PSC Plans A and B, Entry and Upgrade.

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Operation Mainstream. This is a job-creation and work-training program on public improvement projects. Mainstream is for chronically unemployed adults and disadvantaged senior citizens in rural areas.

Public Service Careers Program (PSC). This program trains disadvantaged persons for permanent jobs in the public service areas. On-the-job training occurs through local, State and Federal public agencies. Supportive services are available.

New Careers Program. This program is intended to overcome institutional and educational barriers to employment of disadvantaged persons. With an emphasis on hire now, train later, this program provides grants to private agencies for their participation in efforts that previously were available through public service agencies only.

Total enrollment for each of the programs and the States with the high and low enrollment for each are as follows:

Program	High	Low	Program Total
Work Incentive Program	15,083 (California)	16 (Nevada)	37,360
Concentrated Employment Program	3,460 (Texas)	0 (Idaho, Kansas, Vermont, Wyoming)	42,442
Neighborhood Youth Corps	3,562 (California)	48 (Nebraska)	38,110
Operation Mainstream	834 (Michigan)	1 (Delaware)	10,302
Public Service Careers	571 (Kansas)	0 (Maine, Nevada, New Hampshire, North Dakota)	10,302
New Careers	227 (California)	0 (21 States)	1,306
TOTAL EOA ENROLLMENT			136,797

Enrollment in occupationally reported training programs administered by the U.S. Department of Health, Education and Welfare and by the U.S. Department of Labor. The U.S. Department of Health, Education and Welfare, Office of Education, and the U.S. Department of Labor, Manpower Administration, administer the largest segments of Federally reported programs. Tables 163 and 164 show the percent of total enrollment reported to each agency and the impact of this enrollment on the general population.

Occupationally reported training administered by the U.S. Department of Health, Education and Welfare, and by the U.S. Department of Labor. The total enrollment in all occupationally reported training programs was 10,330,482; of this total 9,984,416 or 96.6 percent, was reported through vocational education and 346,066 or 3.4 percent was reported through the Department of Labor; see Table 163.

Enrollment in occupationally reported programs per 1,000 population. The enrollment per 1,000 population is calculated by summing, then dividing the total enrollment by the number of persons in the population; see Table 164. In the first section of the table, we find that the impact upon the population is that an average of fifty persons per 1,000 in the general population were enrolled in all Federal programs in Fiscal year 1972 that could be reported by occupation.

The second section of the table shows the portion of the impact contributed by vocational education. Of the total involvement of fifty persons per 1,000 for all Federally reported programs, vocational education enrolled over forty-eight persons.

In the third section of Table 164, the impact of MDTA programs is shown. One person per 1,000 in the general population was enrolled.

The impact of EOA programs is smaller. Less than one person per 1,000 (0.66) was enrolled in EOA.

Special Group Enrollment Data

That members of minority groups in the United States experience greater difficulty than the majority of persons in entering and in progressing within the labor market is widely accepted. Thus, minority persons are found in the ranks of the unemployed to a higher percent than they are found in the general population. Consequently, training programs to assist all out-of-school youths and adults to enter the labor market can be expected to enroll high percentages of minority persons.

Negro MDTA trainees. Negro enrollment constituted 28.68 percent of total MDTA enrollment in FY 1972; see Table 165. Immediately above and below this mean were Virginia (29.04 percent) and Missouri (28.35 percent). The highest percent in a State was 66.44 percent in Delaware. No Negroes were enrolled in MDTA programs in New Hampshire.

Negroes in MDTA and in the total population. In FY 1972, the percent of Negroes enrolled in MDTA programs (28.68 percent) was higher by 17.57 percentage points than the percent of Negroes in the total population (11.11 percent); see Table 166. Immediately above and below the mean difference were Missouri, with an 18.08 percentage point difference, and California, with a 17.34 percentage point difference. The highest figure by which the percent of Negro MDTA enrollment surpassed the percent of Negro population in an individual State was 52.16 percentage points (Delaware). At the other end of the scale, the percent of Negro MDTA enrollment was 0.85 percentage points lower than the percent of Negro population in Alaska.

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Table 163 - Numbers and Percent of Persons Receiving Vocational Education and Manpower Training in Federally Reported Programs, 1971-72

States	Persons Receiving Training in Federally Reported Programs	Vocational Education Enrollment	Percent	Manpower Enrollment	Percent
U.S. TOTAL	10,330,482	9,984,416[1]	96.65	346,066	3.35
Alabama	163,537	157,746	96.46	5,791	3.54
Alaska	22,661	20,926	92.34	1,735	7.66
Arizona	107,829	102,806	95.34	5,023	4.66
Arkansas	115,338	110,224	95.57	5,114	4.43
California	1,264,372	1,221,509	96.61	42,863	3.39
Colorado	105,785	101,521	95.97	4,264	4.03
Connecticut	132,291	127,609	96.46	4,682	3.54
Delaware	38,252	37,323	97.57	929	2.43
Dist. of C.	13,421	10,813	80.57	2,608	19.43
Florida	520,540	511.750	98.31	8,790	1.69
Georgia	296,470	289,741	97.73	6,729	2.27
Hawaii	42,038	40,142	95.49	1,896	4.51
Idaho	34,788	33,146	95.28	1,642	4.72
Illinois	606,470	595,879	98.25	10,591	1.75
Indiana	159,811	154,556	96.71	5,255	3.29
Iowa	138,009	133,442	96.69	4,567	3.31
Kansas	104,009	98,819	95.01	5,190	4.99
Kentucky	171,122	164,869	96.35	6,253	3.65
Louisiana	180,846	176,312	97.49	4,534	2.51
Maine	32,244	29,840	92.54	2,404	7.46
Maryland	171,510	166,032	96.81	5,478	3.19
Massachusetts	172,629	163,799	94.88	8,830	5.12
Michigan	354,104	342,985	96.86	11,119	3.14
Minnesota	241,310	234,334	97.11	6,976	2.89
Mississippi	116,042	109,561	94.41	6,481	5.59
Missouri	171,708	162,625	94.71	9,083	5.29
Montana	33,856	32,267	95.31	1,589	4.69
Nebraska	71,165	68.796	96.67	2,369	3.33
Nevada	21,851	20,617	94.35	1,234	5.65
New Hampshire	26,438	25,310	95.73	1,128	4.27
New Jersey	321,275	310,186	96.55	11,089	3.45
New Mexico	55,497	52,338	94.31	3,159	5.69
New York	775,225	754,489	97.33	20,736	2.67
N. Carolina	440,428	430,626	97.77	9,802	2.23
N. Dakota	33,731	32,637	96.76	1,094	3.24
Ohio	425,260	412,007	96.88	13,253	3.12
Oklahoma	114,143	107,395	94.09	6,748	5.91
Oregon	128,006	123,936	96.82	4,070	3.18
Pennsylvania	344,019	327,458	95.19	16,561	3.81
Rhode Island	21,601	19,992	92.55	1,609	7.45
S. Carolina	107,668	101,615	94.38	6,053	5.62
S. Dakota	23,744	22,287	93.86	1,457	6.14
Tennessee	159,408	151,226	94.87	8,182	5.13
Texas	643,913	623,214	96.79	20,699	3.21
Utah	103,462	100,874	97.50	2,588	2.50
Vermont	18,474	16,903	91.50	1,571	8.50
Virginia	275,172	269,799	98.05	5,373	1.95
Washington	259,025	250,802	96.83	8,223	3.17
W. Virginia	66,952	63,312	94.56	3,640	5.44
Wisconsin	261,539	253,495	96.92	8,044	3.08
Wyoming	18,425	17,694	96.03	731	3.97
Guam	286	NA	NA	286	NA
Puerto Rico	100,036	96,832	96.80	3,204	3.20
Virgin Islands	249	NA	NA	249	NA
Unident. States	2,498	NA	NA	2,498	NA

[1] Includes institutional apprenticeship.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1972.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 164 - Enrollment in Federally Reported Vocational Education, MDTA, and EOA, Training, per 1,000 Population, 1971-72

States	Total Population	Enrollment in Vocational Education, Manpower, & Apprenticeship Programs	Enrollments Per 1,000 Population	Rank Order	Total Vocational Education Enrollment	Total Vocation Education Enrollment per 1,000 Population	Manpower Development Training Act Enrollment	MDT Enrollment per 1,000 Population	Economic Opportunity Act Enrollment	EOA Enrollment per 1,000 Population
U.S. Total	205,926,479	10,330,482	50.17		9,984,416	48.49	209,269	1.02	136,797	.66
Alabama	3,444,165	163,537	47.48	29	157,746	45.80	3,603	1.05	2,188	.64
Alaska	300,382	22,661	75.44	5	20,926	69.66	851	2.83	884	2.94
Arizona	1,773,420	107,829	60.80	11	102,806	57.97	2,166	1.22	2,857	1.61
Arkansas	1,923,295	115,338	59.97	12	110,224	57.31	2,965	1.54	2,149	1.12
California	19,953,134	1,264,372	63.37	9	1,221,509	61.22	21,032	1.05	21,831	1.09
Colorado	2,207,259	105,785	47.93	28	101,521	45.99	3,036	1.38	1,228	.56
Connecticut	3,031,709	132,291	43.64	35	127,609	42.09	2,976	.98	1,706	.56
Delaware	548,104	38,252	69.92	6	37,323	68.09	739	1.35	190	.35
Dist of C.	756,510	13,421	17.74	52	10,813	14.29	1,077	1.42	1,531	2.02
Florida	6,789,443	520,540	76.67	3	511,750	75.37	4,176	.62	4,614	.68
Georgia	4,589,575	296,470	64.40	7	289,741	63.13	5,198	1.13	1,531	.33
Hawaii	768,561	42,038	54.60	18	40,142	52.23	985	1.28	911	1.19
Idaho	712,567	34,788	48.82	25	33,146	46.52	884	1.24	758	1.06
Illinois	11,113,976	606,470	54.57	20	595,879	53.62	7,565	.68	3,026	.27
Indiana	5,193,669	159,811	30.77	48	154,556	29.76	3,156	.61	2,099	.40
Iowa	2,824,376	138,009	48.86	24	133,442	47.25	3,455	1.22	1,112	.39
Kansas	2,246,578	104,009	46.30	30	98,819	43.99	3,841	1.71	1,349	.60
Kentucky	3,218,706	171,122	53.16	21	164,869	51.22	2,763	.86	3,490	1.08
Louisiana	3,641,306	180,846	49.67	23	176,312	48.42	2,914	.80	1,620	.44
Maine	992,048	32,244	32.50	47	29,840	30.08	1,5[illegible]	1.59	822	.83
Maryland	3,922,399	171,510	43.73	34	166,032	42.33	3,049	.78	2,429	.62
Massachusetts	5,689,170	172,629	30.34	49	163,799	28.79	3,914	.69	4,916	.86
Michigan	8,875,083	354,104	39.90	41	342,985	38.65	7,182	.81	3,937	.44
Minnesota	3,804,971	241,310	63.42	8	234,334	61.59	4,463	1.17	2,513	.66
Mississippi	2,216,912	116,042	52.34	22	109,561	49.42	3,888	1.75	2,593	1.17

Table 164 - Cont'd

States	Total Population	Enrollment in Vocational Education, Manpower, & Apprenticeship Programs	Enrollments Per 1,000 Population	Rank Order	Total Vocational Education Enrollment	Total Vocational Education Enrollment per 1,000 Population	Manpower Development Training Act Enrollment	MDT Enrollement per 1,000 Population	Economic Opportunity Act Enrollment	EOA Enrollment per 1,000 Population
Missouri	4,676,501	171,708	36.72	44	162,625	34.77	5,947	1.27	3,136	.67
Montana	694,409	33,856	48.76	26	32,267	46.47	815	1.17	774	1.11
Nebraska	1,483,493	71,165	47.97	27	68,796	46.37	1,712	1.15	657	.44
Nevada	488,738	21,851	44.71	32	20,617	42.18	715	1.46	519	1.06
New Hampshire	737,681	26,438	35.84	45	25,310	34.31	753	1.02	375	.51
New Jersey	7,168,164	321,275	44.82	31	310,186	43.27	7,226	1.01	3,863	.54
Nex Mexico	1,016,000	55,497	54.62	17	52,338	51.51	1,578	1.55	1,581	1.56
New York	18,236,967	775,225	42.51	36	754,489	41.37	13,520	.74	7,216	.40
N. Carolina	5,082,059	440,428	86.66	2	430,626	84.73	6,838	1.35	2,964	.58
N. Dakota	617,761	33,731	54.60	19	32,637	52.83	782	1.27	312	.51
Ohio	10,652,017	425,260	39.92	40	412,007	38.68	9,794	.92	3,459	.32
Oklahoma	2,559,229	114,143	44.60	33	107,395	41.96	4,525	1.77	2,223	.87
Oregon	2,091,385	128,006	61.21	10	123,936	59.26	2,270	1.09	1,800	.86
Pennsylvania	11,793,909	344,019	29.17	50	327,458	27.77	9,948	.84	6,613	.56
Rhode Island	946,725	21,601	22.82	51	19,992	21.12	733	.77	876	.93
S. Carolina	2,590,516	107,668	41.56	38	101,615	39.23	3,527	1.36	2,526	.98
S. Dakota	665,507	23,744	35.68	46	22,287	33.49	779	1.17	678	1.02
Tennessee	3,923,687	159,408	40.63	39	151,226	38.54	5,205	1.33	2,977	.76
Texas	11,196,730	643,913	57.51	15	623,214	55.66	12,681	1.13	8,018	.72
Utah	1,059,273	103,462	97.67	1	100,874	95.23	1,350	1.27	1,238	1.17
Vermont	444,330	18,474	41.58	37	16,903	38.04	1,021	2.30	550	1.24
Virginia	4,648,494	275,172	59.20	13	269,799	58.04	3,561	.77	1,812	.39
Washington	3,409,169	259,025	75.98	4	250,802	73.57	6,002	1.76	2,221	.65
W. Virginia	1,744,237	66,952	38.38	42	63,312	36.30	1,611	.92	2,029	1.16
Wisconsin	4,417,731	261,539	59.20	14	253,495	57.38	5,578	1.26	2,466	.56
Wyoming	332,416	18,425	55.43	16	17,694	53.23	518	1.56	213	.64
Guam	NA	286	NA	NA			178	NA	108	NA
Puerto Rico	2,712,033	100,036	36.89	43	96,832	35.70	2,201	.81	1,003	.37
Virgin Isl.	NA	249	NA	NA			198	NA	51	NA
Unident. States	NA	2,498	NA	NA			243	NA	2,255	NA

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 165 - Enrollment of Negro MDTA Trainees as a Percent of MDTA Enrollment, 1971-72

States	Total MDTA Trainee Enrollment	Total Negro MDTA Trainee Enrollment	Total Negro MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	209,269	60,013	28.68
Alabama	3,603	1,772	49.18
Alaska	851	18	2.12
Arizona	2,166	277	12.79
Arkansas	2,965	940	31.70
California	21,032	5,124	24.36
Colorado	3,036	286	9.42
Connecticut	2,976	1,010	33.94
Delaware	739	491	66.44
Dist. of C.	1,077	877	81.43
Florida	4,176	1,886	45.16
Georgia	5,198	1,813	34.88
Hawaii	985	30	3.05
Idaho	884	12	1.36
Illinois	7,565	3,906	51.63
Indiana	3,156	1,244	39.42
Iowa	3,455	192	5.56
Kansas	3,841	844	21.97
Kentucky	2,763	473	17.12
Louisiana	2,914	1,019	34.97
Maine	1,582	11	.70
Maryland	3,049	1,545	50.67
Massachusetts	3,914	607	15.51
Michigan	7,182	2,581	35.94
Minnesota	4,463	277	6.21
Mississippi	3,888	1,839	47.30
Missouri	5,947	1,686	28.35
Montana	815	9	1.10
Nebraska	1,712	311	18.17
Nevada	715	107	14.97
New Hampshire	753	0	0.00
New Jersey	7,226	3,525	48.78
New Mexico	1,578	57	3.61
New York	13,520	,938	36.52
N. Carolina	6,838	508	36.68
N. Dakota	782	1	.13
Ohio	9,794	,043	41.28
Oklahoma	4,525	802	17.72
Oregon	2,270	139	6.12
Pennsylvania	9,948	3,025	30.41
Rhode Island	733	140	19.10
S. Carolina	3,527	1,651	46.81
S. Dakota	779	6	.77
Tennessee	5,205	1,823	35.02
Texas	12,681	3,141	24.77
Utah	1,350	49	3.63
Vermont	1,021	7	.69
Virginia	3,561	1,034	29.04
Washington	6,002	619	10.31
W. Virginia	1,611	89	5.52
Wisconsin	5,578	998	17.89
Wyoming	518	6	1.16
Guam	178	0	0.00
Puerto Rico	2,201	2	.09
Virgin Isl.	198	173	87.37
Unident. States	243	50	20.58

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 166 - Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population, 1971-72

States	Total Negro Population as a Percent of Total Population	Negro MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population
U.S. TOTAL	11.11	28.68	17.57
Alabama	26.23	49.18	22.95
Alaska	2.97	2.12	-.85
Arizona	2.97	12.79	9.82
Arkansas	18.33	31.70	13.37
California	7.02	24.36	17.34
Colorado	3.01	9.42	6.41
Connecticut	5.98	33.94	27.96
Delaware	14.28	66.44	52.16
Dist. of C.	71.08	81.43	10.35
Florida	15.34	45.16	29.82
Georgia	25.87	34.88	9.01
Hawaii	.99	3.05	2.06
Idaho	.30	1.36	1.06
Illinois	12.83	51.63	38.80
Indiana	6.88	39.42	32.54
Iowa	1.15	5.56	4.41
Kansas	4.76	21.97	17.21
Kentucky	7.17	17.12	9.95
Louisiana	29.85	34.97	5.12
Maine	.28	.70	.42
Maryland	17.83	50.67	32.84
Massachusetts	3.09	15.51	12.42
Michigan	11.17	35.94	24.77
Minnesota	.92	6.21	5.29
Mississippi	36.80	47.30	10.50
Missouri	10.27	28.35	18.08
Montana	.29	1.10	.81
Nebraska	2.69	18.17	15.48
Nevada	5.68	14.97	9.29
New Hampshire	.34	0.00	-.34
New Jersey	10.75	48.78	38.03
New Mexico	1.92	3.61	1.69
New York	11.89	36.52	24.63
N. Carolina	22.17	36.68	14.51
N. Dakota	.40	.13	-.27
Ohio	9.11	41.28	32.17
Oklahoma	6.72	17.72	11.00
Oregon	1.26	6.12	4.86
Pennsylvania	8.62	30.41	21.79
Rhode Island	2.68	19.10	16.42
S. Carolina	30.46	46.81	16.35
S. Dakota	.24	.77	.53
Tennessee	15.83	35.02	19.19
Texas	12.49	24.77	12.28
Utah	.62	3.63	3.01
Vermont	.17	.69	.52
Virginia	18.53	29.04	10.51
Washington	2.09	10.31	8.22
W. Virginia	3.86	5.52	1.66
Wisconsin	2.90	17.89	14.99
Wyoming	.77	1.16	.39
Guam	NA	0.00	NA
Puerto Rico	NA	.09	NA
Virgin Isl.	NA	87.37	NA
Unident. States	NA	20.58	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

American Indian MDTA trainees. American Indian enrollment constituted 2.22 percent of total MDTA enrollment in FY 1972; see Table 167. Immediately above and below this mean were Oregon (3.30 percent) and Mississippi (1.90 percent). The highest percent of American Indian MDTA enrollment was 33.96 percent (Alaska). In two States there were no American Indians enrolled in MDTA programs (Delaware and New Hampshire).

American Indians in MDTA and in the total population. In 1972, the percent of American Indians enrolled in MDTA programs (2.22 percent) was higher by 1.83 percentage points than the percent of American Indians in the total population (0.39 percent); see Table 168. Immediately above and below the mean difference of 1.83 percentage points were Oregon with 2.65 percentage points difference and Mississippi with 1.71 percentage points difference. The highest figure by which the percent of American Indian MDTA enrollment surpassed the percent of American Indians in the population of an individual State was 28.54 percentage points (Alaska). In ten States the percent of American Indians in the general population was greater than the percent of American Indians in MDTA. The largest margin by which the percent of American Indians in the population exceeded the percent of American Indians in MDTA was 0.82 percentage points (New Mexico).

Oriental MDTA trainees. Oriental enrollment constituted 0.54 percent of total MDTA enrollment. Immediately above and below this mean were New York (0.61 percentage points) and Colorado, Connecticut and New Jersey (all with 0.40 percentage points); see Table 169. The highest percent of Oriental MDTA enrollment was 31.88 percent Hawaii). In ten States, the District of Columbia and Puerto Rico there were no Orientals enrolled in MDTA programs (Arkansas, Maine, Maryland, Mississippi, Nevada, New Hampshire, Rhode Island, South Dakota, Vermont, and West Virginia).

Orientals in MDTA and in the total population. In 1972, the percent of Orientals enrolled in MDTA programs (0.54 percent) was higher by 0.03 percentage points than the percent of Orientals in the total population (0.51 percent); see Table 170. At the mean of 0.03 percentage points were California, Florida, and Tennessee. The highest figure by which the percent of Oriental enrollment surpassed the percent of Orientals in the population of an individual State was 1.65 percentage points (Idaho). In those States where the percent of Orientals in the general population exceeded the percent of Orientals in MDTA, the largest margin was 3.17 percentage points (Hawaii).

Other MDTA trainees. Enrollment of trainees in MDTA programs classified as Other was 68.57 percent of total enrollment; see Table 171. Immediately above and below this mean were Pennsylvania (69.41 percent) and Arkansas (68.13 percent). The largest percent of Other MDTA enrollment was 100.00 percent (New Hampshire). The smallest was 18.48 percent in the District of Columbia, but the smallest in the State was 39.92 percent in Delaware.

Others in MDTA and in the total population. In 1972, the percent of Others in the general population (87.99 percent) exceeded the percent of Others enrolled in MDTA (68.57 percent) by 19.42 percentage points; see Table 172. Immediately above and below that mean difference were Wisconsin, with a 19.60 percentage point difference, and Tennessee, with a 19.33 percentage difference.

Table 167 - Enrollment of American Indian MDTA Trainees as a Percent of Total MDTA Enrollment, 1971-72

States	Total MDTA Trainees Enrollment	Total American Indian MDTA Trainees	Total American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	209,269	4,637	2.22
Alabama	3,603	2	.06
Alaska	851	289	33.96
Arizona	2,166	485	22.39
Arkansas	2,965	5	.17
California	21,032	214	1.02
Colorado	3,036	156	5.14
Connecticut	2,976	3	.10
Delaware	739	0	0.00
Dist. of C.	1,077	1	.09
Florida	4,176	18	.43
Georgia	5,198	3	.06
Hawaii	985	1	.10
Idaho	884	139	15.72
Illinois	7,565	43	.57
Indiana	3,156	1	.03
Iowa	3,455	27	.78
Kansas	3,841	24	.62
Kentucky	2,763	3	.11
Louisiana	2,914	7	.24
Maine	1,582	17	1.07
Maryland	3,049	5	.16
Massachusetts	3,914	7	.18
Michigan	7,182	100	1.39
Minnesota	4,463	166	3.72
Mississippi	3,888	74	1.90
Missouri	5,947	8	.13
Montana	815	162	19.88
Nebraska	1,712	121	7.07
Nevada	715	130	18.18
New Hampshire	751	0	0.00
New Jersey	7,226	18	.25
New Mexico	1,578	100	6.34
New York	13,520	68	.50
N. Carolina	6,838	120	1.75
N. Dakota	782	125	15.98
Ohio	9,794	11	.11
Oklahoma	4,525	532	11.76
Oregon	2,270	75	3.30
Pennsylvania	9,948	11	.11
Rhode Island	733	1	.14
S. Carolina	3,527	2	.06
S. Dakota	779	195	25.03
Tennessee	5,205	9	.17
Texas	12,481	54	.43
Utah	1,350	126	9.33
Vermont	1,021	1	.10
Virginia	3,561	3	.08
Washington	6,002	632	10.53
W. Virginia	1,611	1	.06
Wisconsin	5,578	287	5.15
Wyoming	518	43	8.30
Guam	178	1	.56
Puerto Rico	2,201	2	.09
Virgin Isl.	198	0	0.00
Unident. States	243	9	3.70

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 168 - Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population, 1971-72

States	Total American Indian Population as a Percent of Total Population	American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population
U.S. TOTAL	.39	2.22	1.83
Alabama	.07	.06	-.01
Alaska	5.42	33.96	28.54
Arizona	5.41	22.39	16.98
Arkansas	.10	.17	.07
California	.46	1.02	.56
Colorado	.40	5.14	4.74
Connecticut	.07	.10	.03
Delaware	.12	0.00	-.12
Dist. of C.	.13	.09	-.04
Florida	.10	.43	.33
Georgia	.05	.06	.01
Hawaii	.15	.10	-.05
Idaho	.94	15.72	14.78
Illinois	.10	.57	.47
Indiana	.07	.03	-.04
Iowa	.11	.78	.67
Kansas	.39	.62	.23
Kentucky	.05	.11	.06
Louisiana	.15	.24	.09
Maine	.22	1.07	.85
Maryland	.11	.16	.05
Massachusetts	.08	.18	.10
Michigan	.19	1.39	1.20
Minnesota	.61	3.72	3.11
Mississippi	.19	1.90	1.71
Missouri	.12	.13	.01
Montana	3.91	19.88	15.97
Nebraska	.45	7.07	6.62
Nevada	1.62	18.18	16.56
New Hampshire	.05	0.00	-.05
New Jersey	.07	.25	.18
New Mexico	7.16	6.34	-.82
New York	.16	.50	.34
N. Carolina	.87	1.75	.88
N. Dakota	2.33	15.98	13.65
Ohio	.06	.11	.05
Oklahoma	3.85	11.76	7.91
Oregon	.65	3.30	2.65
Pennsylvania	.05	.11	.06
Rhode Island	.15	.14	-.01
S. Carolina	.09	.06	-.03
S. Dakota	4.86	25.03	20.17
Tennessee	.06	.17	.11
Texas	.16	.43	.27
Utah	1.06	9.33	8.27
Vermont	.05	.10	.05
Virginia	.10	.08	-.02
Washington	.98	10.53	9.55
W. Virginia	.04	.06	.02
Wisconsin	.63	5.15	4.72
Wyoming	1.50	8.30	6.80
Guam	NA	.56	NA
Puerto Rico	NA	.09	NA
Virgin Isl.	NA	0.00	NA
Unident. States	NA	3.70	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 169 - Enrollment of Oriental MDTA Trainees as a Percent of Total MDTA Enrollment, 1971-72

States	Total MDTA Trainee Enrollment	Total Oriental MDTA Trainee Enrollment	Total Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	209,269	1,120	.54
Alabama	3,603	6	.17
Alaska	851	1	.12
Arizona	2,166	4	.18
Arkansas	2,965	0	0.00
California	21,032	411	1.95
Colorado	3,036	12	.40
Connecticut	2,976	12	.40
Delaware	739	2	.27
Dist. of C.	1,077	0	0.00
Florida	4,176	6	.14
Georgia	5,198	8	.15
Hawaii	985	314	31.88
Idaho	884	18	2.04
Illinois	7,565	6	.08
Indiana	3,156	5	.16
Iowa	3,455	5	.14
Kansas	3,841	15	.39
Kentucky	2,763	5	.18
Louisiana	2,914	2	.07
Maine	1,582	0	0.00
Maryland	3,049	0	0.00
Massachusetts	3,916	4	.10
Michigan	7,182	6	.08
Minnesota	4,463	8	.18
Mississippi	3,888	0	0.00
Missouri	5,947	3	.05
Montana	815	2	.25
Nebraska	1,712	3	.18
Nevada	715	0	0.00
New Hampshire	753	0	0.00
New Jersey	7,226	29	.40
New Mexico	1,578	2	.13
New York	13,520	83	.61
N. Carolina	6,838	9	.13
N. Dakota	782	1	.13
Ohio	9,794	8	.08
Oklahoma	4,525	4	.09
Oregon	2,270	7	.31
Pennsylvania	9,948	7	.07
Rhode Island	733	0	0.00
S. Carolina	3,527	2	.06
S. Dakota	779	0	0.00
Tennessee	5,205	5	.10
Texas	12,681	24	.19
Utah	1,350	3	.22
Vermont	1,021	0	0.00
Virginia	3,561	8	.22
Washington	6,002	65	1.08
W. Virginia	1,611	0	0.00
Wisconsin	5,578	1	.02
Wyoming	518	1	.19
Guam	178	1	.56
Puerto Rico	2,201	0	0.00
Virgin Isl.	198	0	0.00
Unident. States	243	2	.82

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 170 - Difference Between Percent of Orientals in MDTA and Percent of Orientals in Total Population, 1971-72

States	Total Oriental Population as a Percent of Total Population	Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Orientals in MDTA and Percent of Orientals in Total Population
U.S. TOTAL	.51	.54	.03
Alabama	.05	.17	.12
Alaska	.38	.12	-.26
Arizona	.35	.18	-.17
Arkansas	.07	0.00	-.07
California	1.92	1.95	.03
Colorado	.42	.40	-.02
Connecticut	.13	.40	.27
Delaware	.17	.27	.10
Dist. of C.	.43	0.00	-.43
Florida	.11	.14	.03
Georgia	.07	.15	.08
Hawaii	35.05	31.88	-3.17
Idaho	.39	2.04	1.65
Illinois	.29	.08	-.21
Indiana	.08	.16	.08
Iowa	.07	.14	.07
Kansas	.13	.39	.26
Kentucky	.05	.18	.13
Louisiana	.07	.07	0.00
Maine	.06	0.00	-.06
Maryland	.26	0.00	-.26
Massachusetts	.32	.10	-.22
Michigan	.13	.08	-.05
Minnesota	.13	.18	.05
Mississippi	.09	0.00	-.09
Missouri	.11	.05	-.06
Montana	.12	.25	.13
Nebraska	.13	.18	.05
Nevada	.42	0.00	-.42
New Hampshire	.11	0.00	-.11
New Jersey	.21	.40	.19
New Mexico	.15	.13	-.02
New York	.56	.61	.05
N. Carolina	.07	.13	.06
N. Dakota	.07	.13	.06
Ohio	.10	.08	-.02
Oklahoma	.09	.09	0.00
Oregon	.64	.31	-.33
Pennsylvania	.11	.07	-.04
Rhode Island	.18	0.00	-.18
S. Carolina	.05	.06	.01
S. Dakota	.06	0.00	-.06
Tennessee	.07	.10	.03
Texas	.13	.19	.06
Utah	.57	.22	-.35
Vermont	.07	0.00	-.07
Virginia	.14	.22	.08
Washington	.87	1.08	.21
W. Virginia	.04	0.00	-.04
Wisconsin	.12	.02	-.10
Wyoming	.26	.19	-.07
Guam	NA	.56	NA
Puerto Rico	NA	0.00	NA
Virgin Isl.	NA	0.00	NA
Unident. States	NA	.82	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

The largest number of percentage points (45.51) by which the percent of Other persons in the general population exceeded the percent of Other persons in MDTA was found in Delaware. In only one instance did the percent of Other persons enrolled in MDTA surpass the percent of Other persons in the general population -- 0.49 percentage points, New Hampshire.

Negro enrollment in EOA programs. Negro enrollment constituted 39.96 percent of total EOA enrollment; see Table 173. Immediately above and below this mean were New York (43.45 percent) and Texas (36.75 percent). The highest percent of Negro enrollment was 95.10 percent in the District of Columbia; the highest percent of Negro enrollment in a State was 83.66 percent in Maryland. The lowest was 0.73 percent (Vermont).

Negroes in EOA programs and in the total population. The percent of Negroes enrolled in EOA programs (39.66 percent) was higher by 28.85 percentage points than the percent of Negroes in the total population (11.11 percent); see Table 174. Immediately above and below the mean difference of 28.85 percentage points were Massachusetts (29.76 percentage point difference) and Kansas (26.82 percentage point difference). The highest figure by which the percent of Negro EOA enrollment surpassed the percent of Negroes in the population of an individual State was 65.83 percentage points (Maryland). The lowest was 0.56 percentage points (Vermont).

American Indian enrollment in EOA programs. American Indian enrollment constituted 3.26 percent of total EOA enrollment; see Table 175. Immediately above and below this mean were Wyoming (3.29 percent) and Michigan (2.82 percent). The highest percent of American Indian enrollment in EOA programs was 49.77 percent (Alaska). No American Indians were enrolled in EOA programs in Delaware and Hawaii.

American Indians in EOA programs and in the total population. The percent of American Indians enrolled in EOA programs (3.26 percent) was higher by 2.87 percentage points than the percent of American Indians in the total population (0.39 percent); see Table 176. Immediately above and below the mean difference of 2.87 percentage points were Oklahoma (3.12 percentage point difference) and Michigan (2.63 percentage point difference). The highest figure by which the percent of American Indian EOA enrollment surpassed the percent of American Indians in the population of an individual State was 44.35 percentage points (Alaska). In three States the percent of American Indians in EOA programs was lower than the percent of American Indians in the general population. In two of these, there were no American Indians enrolled (Delaware and Hawaii). In these instances percent of enrollment therefore was lower by 0.12 and 0.15 percentage points, respectively, than the percent in the general population. The third State was Louisiana, where the figure was 0.09 percentage points lower.

Oriental enrollment in EOA programs. Oriental enrollment constituted 0.41 percent of total enrollment. Immediately above and below this mean were Oklahoma (0.76 percent) and Nevada (0.39 percent); see Table 177. The highest percent was in Hawaii (13.83 percent). Seventeen States had no Orientals in EOA programs -- Delaware, Georgia, Illinois, Iowa, Louisiana, Maine, Mississippi, Nebraska, New Hampshire, North Carolina, North Dakota, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, and Wyoming.

Table 171 - Enrollment of Other MDTA Trainees as a Percent of Total MDTA Enrollment, 1971-72

States	Total MDTA Trainee Enrollment	Total Other MDTA Trainee Enrollment	Total Other MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	209,269	143,499	68.57
Alabama	3,603	1,823	50.60
Alaska	851	543	63.81
Arizona	2,166	1,400	64.64
Arkansas	2,965	2,020	68.13
California	21,032	15,283	72.67
Colorado	3,036	2,582	85.05
Connecticut	2,976	1,951	65.56
Delaware	739	295	39.92
Dist. of C.	1,077	199	18.48
Florida	4,176	2,266	54.26
Georgia	5,198	3,325	63.97
Hawaii	985	625	63.45
Idaho	884	730	82.58
Illinois	7,565	3,607	47.68
Indiana	3,156	1,909	60.49
Iowa	3,455	3,230	93.49
Kansas	3,841	2,959	77.04
Kentucky	2,763	2,282	82.59
Louisiana	2,914	1,886	64.72
Maine	1,582	1,554	98.23
Maryland	3,049	1,499	49.16
Massachusetts	3,914	3,296	84.21
Michigan	7,182	4,495	62.59
Minnesota	4,463	4,012	89.89
Mississippi	3,888	1,975	50.80
Missouri	5,947	4,250	71.46
Montana	815	642	78.77
Nebraska	1,712	1,277	74.59
Nevada	715	478	66.85
New Hampshire	753	753	100.00
New Jersey	7,226	3,654	50.57
New Mexico	1,578	1,419	89.92
New York	13,520	8,431	62.36
N. Carolina	6,838	4,201	61.44
N. Dakota	782	655	83.76
Ohio	9,794	5,732	58.53
Oklahoma	4,525	3,187	70.43
Oregon	2,270	2,049	90.26
Pennsylvania	9,948	6,905	69.41
Rhode Island	733	592	80.76
S. Carolina	3,527	1,872	53.08
S. Dakota	779	578	74.20
Tennessee	5,205	3,368	64.71
Texas	12,681	9,461	74.61
Utah	1,350	1,173	86.89
Vermont	1,021	1,013	99.22
Virginia	3,561	2,516	70.65
Washington	6,002	4,686	78.07
W. Virginia	1,611	1,521	94.41
Wisconsin	5,578	4,292	76.95
Wyoming	518	468	90.35
Guam	178	176	98.88
Puerto Rico	2,201	2,197	99.82
Virgin Isl.	198	25	12.63
Unident. States	243	182	74.90

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 172 - Difference Between Percent of Others in MDTA and Percent of Others in Total Population, 1971-72

States	Total Other Population as a Percent of Total Population	Other MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Others in MDTA and Percent of Others in Total Population
U.S. TOTAL	87.99	68.57	-19.42
Alabama	73.65	50.60	-23.05
Alaska	91.23	63.81	-27.42
Arizona	91.26	64.64	-26.62
Arkansas	81.50	68.13	-13.37
California	90.61	72.67	-17.94
Colorado	96.17	85.05	-11.12
Connecticut	93.82	65.56	-28.26
Delaware	85.43	39.92	-45.51
Dist. of C.	28.37	18.48	-9.89
Florida	84.45	54.26	-30.19
Georgia	74.01	63.97	-10.04
Hawaii	63.82	63.45	-.37
Idaho	98.38	82.58	-15.80
Illinois	86.78	47.68	-39.10
Indiana	92.96	60.49	-32.47
Iowa	98.67	93.49	-5.18
Kansas	94.73	77.04	-17.69
Kentucky	92.73	82.59	-10.14
Louisiana	69.94	64.72	-5.22
Maine	99.44	98.23	-1.21
Maryland	81.80	49.16	-32.64
Massachusetts	96.51	84.21	-12.30
Michigan	88.51	62.59	-25.92
Minnesota	98.34	89.89	-8.45
Mississippi	62.93	50.80	-12.13
Missouri	89.51	71.46	-18.05
Montana	95.68	78.77	-16.91
Nebraska	96.74	74.59	-22.15
Nevada	92.28	66.85	-25.43
New Hampshire	99.51	100.00	.49
New Jersey	88.98	50.57	-38.41
New Mexico	90.76	89.92	-.84
New York	87.39	62.36	-25.03
N. Carolina	76.89	61.44	-15.45
N. Dakota	97.20	83.76	-13.44
Ohio	90.72	58.53	-32.19
Oklahoma	89.34	70.43	-18.91
Oregon	97.46	90.26	-7.20
Pennsylvania	91.23	69.41	-21.82
Rhode Island	96.99	80.76	-16.23
S. Carolina	69.40	53.08	-16.32
S. Dakota	94.83	74.20	-20.63
Tennessee	84.04	64.71	-19.33
Texas	87.22	74.61	-12.61
Utah	97.75	86.89	-10.86
Vermont	99.71	99.22	-.49
Virginia	81.23	70.65	-10.58
Washington	96.06	78.07	-17.99
W. Virginia	96.05	94.41	-1.64
Wisconsin	96.55	76.95	-19.60
Wyoming	97.47	90.35	-7.12
Guam	NA	98.88	NA
Puerto Rico	NA	99.82	NA
Virgin Isl.	NA	12.63	NA
Unident. States	NA	74.90	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 173 - Total Negro Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1971-72

States	Total EOA Enrollment	Total Negro EOA Enrollment	Total Negro EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	136,797	54,659	39.96
Alabama	2,188	1,315	60.10
Alaska	884	41	4.64
Arizona	2,857	708	24.78
Arkansas	2,149	1,061	49.37
California	21,831	5,370	24.60
Colorado	1,228	226	18.40
Connecticut	1,706	853	50.00
Delaware	190	132	69.47
Dist. of C.	1,531	1,456	95.10
Florida	4,614	3,338	72.35
Georgia	1,531	1,101	71.91
Hawaii	911	118	12.95
Idaho	758	51	6.73
Illinois	3,026	2,203	72.80
Indiana	2,099	1,059	50.45
Iowa	1,112	265	23.83
Kansas	1,349	426	31.58
Kentucky	3,490	643	18.42
Louisiana	1,620	1,277	78.83
Maine	822	18	2.19
Maryland	2,429	2,032	83.66
Massachusetts	4,916	1,615	32.85
Michigan	3,937	1,051	26.70
Minnesota	2,513	231	9.19
Mississippi	2,593	2,044	78.83
Missouri	3,136	1,642	52.36
Montana	774	27	3.49
Nebraska	657	340	51.75
Nevada	519	241	46.44
New Hampshire	375	9	2.40
New Jersey	3,863	2,211	57.24
New Mexico	1,581	93	5.88
New York	7,216	3,135	43.45
N. Carolina	2,964	2,189	73.85
N. Dakota	312	25	8.01
Ohio	3,459	1,819	52.59
Oklahoma	2,223	695	31.26
Oregon	1,800	228	12.67
Pennsylvania	6,613	3,302	49.93
Rhode Island	876	320	36.53
S. Carolina	2,526	2,019	79.93
S. Dakota	678	26	3.83
Tennessee	2,977	1,606	53.95
Texas	8,018	2,947	36.75
Utah	1,238	76	6.14
Vermont	550	4	.73
Virginia	1,812	1,347	74.34
Washington	2,221	404	18.19
W. Virginia	2,029	151	7.44
Wisconsin	2,466	669	27.13
Wyoming	213	25	11.74
Guam	108	2	1.85
Puerto Rico	1,003	12	1.20
Virgin Isl.	51	7	13.73
Unident. States	2,255	454	20.13

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 174 - Difference Between the Percent of Negroes Enrolled in EOA Programs and the Percent of Negroes in the Total Population, 1971-72

States	Total Negro Population as a Percent of Total Population	Negro EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Negroes Enrolled in EOA and Percent of Negroes in Total Population
U.S. TOTAL	11.11	39.96	28.85
Alabama	26.23	60.10	33.87
Alaska	2.97	4.64	1.67
Arizona	2.97	24.78	21.81
Arkansas	18.33	49.37	31.04
California	7.02	24.60	17.58
Colorado	3.01	18.40	15.39
Connecticut	5.98	50.00	44.02
Delaware	14.28	69.47	55.19
Dist. of C.	71.08	95.10	24.02
Florida	15.34	72.35	57.01
Georgia	25.87	71.91	46.04
Hawaii	.99	12.95	11.96
Idaho	.30	6.73	6.43
Illinois	12.83	72.80	59.97
Indiana	6.88	50.45	43.57
Iowa	1.15	23.83	22.68
Kansas	4.76	31.58	26.82
Kentucky	7.17	18.42	11.25
Louisiana	29.85	78.83	48.98
Maine	.28	2.19	1.91
Maryland	17.83	83.66	65.83
Massachusetts	3.09	32.85	29.76
Michigan	11.17	26.70	15.53
Minnesota	.92	9.19	8.27
Mississippi	36.80	78.83	42.03
Missouri	10.27	52.36	42.09
Montana	.29	3.49	3.20
Nebraska	2.69	51.75	49.06
Nevada	5.68	46.44	40.76
New Hampshire	.34	2.40	2.06
New Jersey	10.75	57.24	46.49
New Mexico	1.92	5.88	3.96
New York	11.89	43.45	31.56
N. Carolina	22.17	73.85	51.68
N. Dakota	.40	8.01	7.61
Ohio	9.11	52.59	43.48
Oklahoma	6.72	31.26	24.54
Oregon	1.26	12.67	11.41
Pennsylvania	8.62	49.93	41.31
Rhode Island	2.68	36.53	33.85
S. Carolina	30.46	79.93	49.47
S. Dakota	.24	3.83	3.59
Tennessee	15.83	53.95	38.12
Texas	12.49	36.75	24.26
Utah	.62	6.14	5.52
Vermont	.17	.73	.56
Virginia	18.53	74.34	55.81
Washington	2.09	18.19	16.10
W. Virginia	3.86	7.44	3.58
Wisconsin	2.90	27.13	24.23
Wyoming	.77	11.74	10.97
Guam	NA	1.85	NA
Puerto Rico	NA	1.20	NA
Virgin Isl.	NA	13.73	NA
Unident. States	NA	20.13	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

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Table 175 - Total American Indian Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1971-72

States	Total EOA Enrollment	Total American Indian EOA Enrollment	Total American Indian Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	136,797	4,463	3.26
Alabama	2,188	11	.50
Alaska	884	440	49.77
Arizona	2,857	623	21.81
Arkansas	2,149	3	.14
California	21,831	275	1.26
Colorado	1,228	26	2.12
Connecticut	1,706	8	.47
Delaware	190	0	0.00
Dist. of C.	1,531	5	.33
Florida	4,614	18	.39
Georgia	1,531	2	.13
Hawaii	911	0	0.00
Idaho	758	32	4.22
Illinois	3,026	122	4.03
Indiana	2,099	4	.19
Iowa	1,112	4	.36
Kansas	1,349	13	.96
Kentucky	3,490	2	.06
Louisiana	1,620	1	.06
Maine	822	5	.61
Maryland	2,429	8	.33
Massachusetts	4,916	22	.45
Michigan	3,937	111	2.82
Minnesota	2,513	[illegible]	15.08
Mississippi	2,593	[illegible]	1.35
Missouri	3,136	15	.48
Montana	774	188	24.29
Nebraska	657	143	21.77
Nevada	519	32	6.17
New Hampshire	375	13	3.47
New Jersey	3,863	15	.39
New Mexico	1,581	451	28.53
New York	7,216	33	.46
N. Carolina	2,964	152	5.13
N. Dakota	312	50	16.03
Ohio	3,459	26	.75
Oklahoma	2,223	155	6.97
Oregon	1,800	93	5.17
Pennsylvania	6,613	33	.50
Rhode Island	876	2	.23
S. Carolina	2,526	3	.12
S. Dakota	678	279	41.15
Tennessee	2,977	65	2.18
Texas	8,018	17	.21
Utah	1,238	84	6.79
Vermont	550	14	2.55
Virginia	1,812	3	.17
Washington	2,221	154	6.93
W. Virginia	2,029	38	1.87
Wisconsin	2,466	118	4.79
Wyoming	213	7	3.29
Guam	108	0	0.00
Puerto Rico	1,003	2	.20
Virgin Isl.	51	0	0.00
Unident. States	2,255	129	5.72

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 176 - Difference Between the Percent of American Indians Enrolled in EOA Programs and the Percent of American Indians in the Total Population, 1971-72

States	Total American Indian Population as a Percent of Total Population	American Indian Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of American Indians Enrolled in EOA and the Percent of American Indians in Total Population
U.S. TOTAL	.39	3.26	2.87
Alabama	.07	.50	.43
Alaska	5.42	49.77	44.35
Arizona	5.41	21.81	16.40
Arkansas	.10	.14	.04
California	.46	1.26	.80
Colorado	.40	2.12	1.72
Connecticut	.07	.47	.40
Delaware	.12	0.00	-.12
Dist. of C.	.13	.33	.20
Florida	.10	.39	.29
Georgia	.05	.13	.08
Hawaii	.15	0.00	-.15
Idaho	.94	4.22	3.28
Illinois	.10	4.03	3.93
Indiana	.07	.19	.12
Iowa	.11	.36	.25
Kansas	.39	.96	.57
Kentucky	.05	.06	.01
Louisiana	.15	.06	-.09
Maine	.22	.61	.39
Maryland	.11	.33	.22
Massachusetts	.08	.45	.37
Michigan	.19	2.82	2.63
Minnesota	.61	15.08	14.47
Mississippi	.19	1.35	1.16
Missouri	.12	.48	.36
Montana	3.91	24.29	20.38
Nebraska	.45	21.77	21.32
Nevada	1.62	6.17	4.55
New Hampshire	.05	3.47	3.42
New Jersey	.07	.39	.32
New Mexico	7.16	28.53	21.37
New York	.16	.46	.30
N. Carolina	.87	5.13	4.26
N. Dakota	2.33	16.03	13.70
Ohio	.06	.75	.69
Oklahoma	3.85	6.97	3.12
Oregon	.65	5.17	4.52
Pennsylvania	.05	.50	.45
Rhode Island	.15	.23	.08
S. Carolina	.09	.12	.03
S. Dakota	4.86	41.15	36.29
Tennessee	.06	2.18	2.12
Texas	.16	.21	.05
Utah	1.06	6.79	5.73
Vermont	.05	2.55	2.50
Virginia	.10	.17	.07
Washington	.98	6.93	5.95
W. Virginia	.04	1.87	1.83
Wisconsin	.43	4.79	4.36
Wyoming	1.50	3.29	1.79
Guam	NA	0.00	NA
Puerto Rico	NA	.20	NA
Virgin Isl.	NA	0.00	NA
Unident. States	NA	5.72	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Orientals in EOA programs and in the total population. The percent of Oriental persons in the general population was greater than the percent of Oriental persons in EOA program in most States; see Table 178. The largest degree to which the percent of Oriental persons in the general population exceeded the percent of Oriental persons in EOA programs was 21.22 percentage points (Hawaii). The average difference to which the percent of Oriental persons in the general population exceeded the percent of Oriental persons in EOA programs was 0.10 percentage points (Arizona was at this mean). In several States the percent of Oriental persons in EOA programs exceeded the percent of Oriental persons in the general population. South Dakota, with a 1.71 percentage point difference, was the State in which this was true to the greatest extent.

Other enrollment in EOA programs. Enrollment of trainees in EOA programs classified as Other was 56.36 percent of total EOA enrollment; see Table 179. Immediately above and below this mean were Montana (58.27 percent) and New York (54.89). The highest percent of Other EOA enrollment was 98.73 (Vermont). The lowest was 4.44 percent in the District of Columbia, but the lowest in a State was 15.89 percent (Maryland).

Others in EOA programs and in the total population. The percent of Others in the general population was greater than the percent of Others in EOA programs; see Table 180. The largest degree to which this was true was 65.91 percentage points (Maryland). The average was 31.63 percentage points. Immediately above and below this mean difference were New York (32.50 percentage points) and Arkansas (31.06 percentage points). In only one State did the percent of Others in the general population exceed the percent of Others in EOA programs -- Hawaii, by 7.20 percentage points.

Enrollment in USDL MDTA programs by male and female. Male enrollment comprised 67.98 percent of total enrollment in MDTA, and female enrollment comprised 31.91 percent; see Table 181. Of MDTA enrollment, 0.10 percent was not reported by sex.

Inasmuch as male and female enrollments are reciprocal, the highest male enrollment occurs in the same State in which the lowest female occurs. In this case it was Kansas, where the male enrollment was 79.56 percent, and the female enrollment was 20.41 percent. Those not reported by sex were 0.03 percent of total enrollment. Lowest male enrollment in a State was 53.65 in New Hampshire, which therefore had the highest female enrollment, 46.35 percent. Those not reported by sex comprised 0.00 percent of total MDTA enrollment in that State.

Enrollment in USDL EOA programs by male and female. Males comprised 53.70 percent of total EOA enrollment, and femlaes 45.88 percent; see Table 182. The percent of EOA enrollment not reported by sex in Delaware which therefore had the lowest percent of male enrollment, 30.53 percent. Those not reported by sex in this State comprised 0.53 percentage points of EOA enrollment. The highest percent of male enrollment was 68.34, in Nebraska, its percent of females, the lowest, was 31.66. Those not reported by sex constituted 0.00 percent of the EOA enrollment in this State.

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Table 177 - Total Oriental Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1971-72

States	Total EOA Enrollment	Total Oriental EOA Enrollment	Total Oriental EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	136,797	558	.41
Alabama	2,188	1	.05
Alaska	884	12	1.36
Arizona	2,857	7	.25
Arkansas	2,149	1	.05
California	21,831	232	1.06
Colorado	1,228	4	.33
Connecticut	1,706	1	.06
Delaware	190	0	0.00
Dist. of C.	1,531	1	.07
Florida	4,614	1	.02
Georgia	1,531	0	0.00
Hawaii	911	126	13.83
Idaho	758	2	.26
Illinois	3,026	0	0.00
Indiana	2,099	2	.10
Iowa	1,112	0	0.00
Kansas	1,349	4	.30
Kentucky	3,490	2	.06
Louisiana	1,620	0	0.00
Maine	822	0	0.00
Maryland	2,429	2	.08
Massachusetts	4,916	12	.24
Michigan	3,937	3	.08
Minnesota	2,513	7	.28
Mississippi	2,593	0	0.00
Missouri	3,136	1	.03
Montana	774	1	.13
Nebraska	657	0	0.00
Nevada	519	2	.39
New Hampshire	375	0	0.00
New Jersey	3,863	7	.18
New Mexico	1,581	1	.06
New York	7,216	7	.10
N. Carolina	2,964	0	0.00
N. Dakota	312	0	0.00
Ohio	3,459	2	.06
Oklahoma	2,223	17	.76
Oregon	1,800	20	1.11
Pennsylvania	6,613	7	.11
Rhode Island	876	0	0.00
S. Carolina	2,526	0	0.00
S. Dakota	678	12	1.77
Tennessee	2,977	0	0.00
Texas	8,018	9	.11
Utah	1,238	4	.32
Vermont	550	0	0.00
Virginia	1,812	1	.06
Washington	2,221	33	1.49
W. Virginia	2,029	0	0.00
Wisconsin	2,466	4	.16
Wyoming	213	0	0.00
Guam	108	1	.93
Puerto Rico	1,003	2	.20
Virgin Isl.	51	0	0.00
Unident. States	2,255	7	.31

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 178 - Difference Between the Percent of Orientals Enrolled in EOA Programs and the Percent of Orientals in the Total Population, 1971-72

States	Total Oriental Population as a Percent of Total Population	Oriental EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Orientals Enrolled in EOA and Percent of Orientals in Total Population
U.S. TOTAL	.51	.41	-.10
Alabama	.05	.05	0.00
Alaska	.38	1.36	.98
Arizona	.35	.25	-.10
Arkansas	.07	.05	-.02
California	1.92	1.06	-.86
Colorado	.42	.33	-.09
Connecticut	.13	.06	-.07
Delaware	.17	0.00	-.17
Dist. of C.	.43	.07	-.36
Florida	.11	.02	-.09
Georgia	.07	0.00	-.07
Hawaii	35.05	13.83	-21.22
Idaho	.39	.26	-.13
Illinois	.29	0.00	-.29
Indiana	.08	.10	.02
Iowa	.07	0.00	-.07
Kansas	.13	.30	.17
Kentucky	.05	.06	.01
Louisiana	.07	0.00	-.07
Maine	.06	0.00	-.06
Maryland	.26	.08	-.18
Massachusetts	.32	.24	-.08
Michigan	.13	.08	-.05
Minnesota	.13	.28	.15
Mississippi	.09	0.00	-.09
Missouri	.11	.03	-.08
Montana	.12	.13	.01
Nebraska	.13	0.00	-.13
Nevada	.42	.39	-.03
New Hampshire	.11	0.00	-.11
New Jersey	.21	.18	-.03
New Mexico	.15	.06	-.09
New York	.56	.10	-.46
N. Carolina	.07	0.00	-.07
N. Dakota	.07	0.00	-.07
Ohio	.10	.06	-.04
Oklahoma	.09	.76	.67
Oregon	.64	1.11	.47
Pennsylvania	.11	.11	0.00
Rhode Island	.18	0.00	-.18
S. Carolina	.05	0.00	-.05
S. Dakota	.06	1.77	1.71
Tennessee	.07	0.00	-.07
Texas	.13	.11	-.02
Utah	.57	.32	-.25
Vermont	.07	0.00	-.07
Virginia	.14	.86	-.08
Washington	.87	1.49	.62
W. Virginia	.04	0.00	-.04
Wisconsin	.12	.16	.04
Wyoming	.26	0.00	-.26
Guam	NA	.93	NA
Puerto Rico	NA	.20	NA
Virgin Isl.			
Unident. States	NA	.31	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

FINANCIAL

Financial data on occupationally reported programs under the Department of Labor were not made available to Project Baseline. The data on Department of Labor finances in the following tables were taken from Manpower Report of the President, 1973, and represent allocations.

The tables deal with Federal monies only. When reviewing these tables, one should remember that almost all expenditures for MDTA and EOA programs are absorbed by Federal monies. In vocational education, only about one dolloar in five is Federal money; State and local monies make up the rest.

Contrasting financial activities between vocational education and Department of Labor training programs is difficult. Vocational education monies are expenditures. The Department of Labor figures are merely allocations, since no acceptable source of expenditures could be found. Acknowledging this difference, the monies for the two agencies are contrasted.

Federal expenditures for vocational education and allocations for MDTA and EOA programs. The total expenditures/allocations for all programs was $1,480,857,460; see Table 183. Of this total $464,487,460 was expended for vocational education. Federal allocations for MDTA programs totaled $424,553,000, and Federal allocations for EOA programs totaled $591,871,000.

The State with the greatest amount in each of the categories was California, with $37,514,372 spent in vocational education, $46,900,000 allocated for MDTA programs $52,963,000 allocated for EOA programs -- a total of $141,377,372 expended/allocated. The State with the least in each of the categories was Syoming, with $846,273 spent in vocational education, $1,097,000 allocated for MDTA programs, $619,000 allocated for EOA programs -- a total of $2,562,273 expended/allocated.

Vocational education expenditures and MDTA/EOA allocations as a percent of Federal expenditures/allocations. Total Federal monies for Federally reported programs are divided into three categories: expenditures for vocational education, 31.37 percent of the total; allocations for MDTA, 28.67 percent of the total; and allocations for EOA, 39.96 percent of the total; see Table 184.

In expenditures for vocational education the highest percent of Federal expenditures was 53.15 percent (Georgia). The lowest was 17.00 percent (Alaska). Immediately above and below the mean of 31.37 percent were Hawaii (32.45 percent) and Maryland (30.11 percent).

The highest percent of Federal allocations for MDTA was 48.75 percent in the District of Columbia; the highest State percent was 45.88 percent in Idaho. Immediately above and below the mean of 28.67 percent were Washington (29.11 percent) and Wisconsin (28.15 percent). The lowest percent of MDTA allocations was 14.73 percent (Florida).

The highest percent of Federal allocations for EOA programs was 56.74 percent (Kentucky). The lowest percent was 15.54 percent (Idaho). The States immediately above and below the mean of 39.96 percent were California (40.29 percent) and New York and Vermont (both 39.77 percent).

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Table 179 - Total Other Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1971-72

States	Total EOA Trainee Enrollment	Total Other EOA Trainee Enrollment	Total Other EOA Trainee Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	136,797	77,093	56.36
Alabama	2,188	861	39.35
Alaska	884	389	44.00
Arizona	2,857	1,524	53.34
Arkansas	2,149	1,084	50.44
California	21,831	15,938	73.01
Colorado	1,228	974	79.32
Connecticut	1,706	844	49.47
Delaware	190	58	30.53
Dist. of C.	1,531	68	4.44
Florida	4,614	1,257	27.24
Georgia	1,531	426	27.82
Hawaii	911	647	71.02
Idaho	758	565	74.54
Illinois	3,026	809	26.73
Indiana	2,099	1,032	49.17
Iowa	1,112	843	75.81
Kansas	1,349	909	67.38
Kentucky	3,490	2,844	81.49
Louisiana	1,620	342	21.11
Maine	822	799	97.20
Maryland	2,429	386	15.89
Massachusetts	4,916	3,268	66.48
Michigan	3,927	2,682	68.30
Minnesota	2,513	1,974	78.55
Mississippi	2,593	524	20.21
Missouri	3,136	1,481	47.23
Montana	774	451	58.27
Nebraska	657	277	42.16
Nevada	519	242	46.63
New Hampshire	375	365	97.33
New Jersey	3,863	1,626	42.09
New Mexico	1,581	1,038	65.65
New York	7,216	3,961	54.89
N. Carolina	2,964	649	21.90
N. Dakota	312	227	72.76
Ohio	3,459	1,628	47.07
Oklahoma	2,223	1,327	59.69
Oregon	1,800	1,514	84.11
Pennsylvania	6,613	3,276	49.54
Rhode Island	876	552	63.01
S. Carolina	2,526	506	20.03
S. Dakota	678	310	45.72
Tennessee	2,977	1,367	45.92
Texas	8,018	5,038	62.83
Utah	1,238	1,067	86.19
Vermont	550	543	98.73
Virginia	1,812	463	25.55
Washington	2,221	1,611	72.53
W. Virginia	2,029	1,878	92.56
Wisconsin	2,466	1,676	67.96
Wyoming	213	181	84.98
Guam	108	105	97.22
Puerto Rico	1,003	988	98.50
Virgin Isl.	51	44	86.27
Unident. States	2,255	1,655	73.39

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973

Table 180 - Difference Between the Percent of Others Enrolled in EOA Programs and the Percent of Others in the Total Population, 1971-72

States	Total Other Population as a Percent of Total Population	Other EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Others in EOA and Percent of Others in Total Population
U.S. TOTAL	87.99	56.36	-31.63
Alabama	73.65	39.35	-34.30
Alaska	91.23	44.00	-47.23
Arizona	91.26	53.34	-37.92
Arkansas	81.50	50.44	-31.06
California	90.61	73.01	-17.60
Colorado	96.17	79.32	-16.85
Connecticut	93.82	49.47	-44.35
Delaware	85.43	30.53	-54.90
Dist. of C.	28.37	4.44	-23.93
Florida	84.45	27.24	-57.21
Georgia	74.01	27.82	-46.19
Hawaii	63.82	71.02	7.20
Idaho	98.38	74.54	-23.84
Illinois	86.78	26.73	-60.05
Indiana	92.96	49.17	-43.79
Iowa	98.67	75.81	-22.86
Kansas	94.73	67.38	-27.35
Kentucky	92.73	81.49	-11.24
Louisiana	69.94	21.11	-48.83
Maine	99.44	97.20	-2.24
Maryland	81.80	15.89	-65.91
Massachusetts	96.51	66.48	-30.03
Michigan	88.51	68.30	-20.21
Minnesota	98.34	78.55	-19.79
Mississippi	62.93	20.21	-42.72
Missouri	89.51	47.23	-42.28
Montana	95.68	58.27	-37.41
Nebraska	96.74	42.16	-54.58
Nevada	92.28	46.63	-45.65
New Hampshire	99.51	97.33	-2.18
New Jersey	88.98	42.09	-46.89
New Mexico	90.76	65.65	-25.11
New York	87.39	54.89	-32.50
N. Carolina	76.89	21.90	-54.99
N. Dakota	97.20	72.76	-24.44
Ohio	90.72	47.07	-43.65
Oklahoma	89.34	59.69	-29.65
Oregon	97.46	84.11	-13.35
Pennsylvania	91.23	49.54	-41.69
Rhode Island	96.99	63.01	-33.98
S. Carolina	69.40	20.03	-49.37
S. Dakota	94.83	45.72	-49.11
Tennessee	84.04	45.92	-38.12
Texas	87.22	62.83	-24.39
Utah	97.75	86.19	-11.56
Vermont	99.71	98.73	-.98
Virginia	81.23	25.55	-55.68
Washington	96.06	72.53	-23.53
W. Virginia	96.05	92.56	-3.49
Wisconsin	96.55	67.96	-28.59
Wyoming	97.47	84.98	-12.49
Guam	NA	97.22	NA
Puerto Rico	NA	98.50	NA
Virgin Isl.	NA	86.27	NA
Unident. States	NA	73.39	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 181 - Percent of Enrollment in U.S. Department of Labor Manpower Training Programs by Male and Female, 1971-72

States	Enrollment in USDL MDTA Programs 1971-72	Male Enrollment in MDTA Programs	Percent of Total	Female Enrollment in MDTA Programs	Percent of Total	MDTA Enrollment Not Reported by Sex	Percent of Total
U.S. TOTAL	209,269	142,270	67.98[1]	66,781	31.91[1]	218	.10[1]
Alabama	3,603	2,398	66.56	1,204	33.42	1	.03
Alaska	851	532	62.51	319	37.49	0	0.00
Arizona	2,166	1,434	66.20	727	33.56	5	.23
Arkansas	2,965	1,966	66.31	996	33.59	3	.10
California	21,032	15,824	75.24	5,153	24.50	55	.26
Colorado	3,036	2,369	78.03	662	21.81	5	.16
Connecticut	2,976	1,831	61.53	1,143	38.41	2	.07
Delaware	739	505	68.34	234	31.66	0	0.00
Dist. of C.	1,077	674	62.58	401	37.23	2	.19
Florida	4,176	2,600	62.26	1,569	37.57	7	.17
Georgia	5,198	3,724	71.64	1,471	28.30	3	.06
Hawaii	985	551	55.94	434	44.06	0	0.00
Idaho	884	589	66.63	295	33.37	0	0.00
Illinois	7,565	4,256	56.26	3,306	43.70	3	.04
Indiana	3,156	2,112	66.92	1,039	32.92	5	.16
Iowa	3,455	2,405	69.61	1,050	30.39	0	0.00
Kansas	3,841	3,056	79.56	784	20.41	1	.03
Kentucky	2,763	1,793	64.89	968	35.03	2	.07
Louisiana	2,914	1,987	68.19	924	31.71	3	.10
Maine	1,582	1,185	74.91	397	25.09	0	0.00
Maryland	3,049	1,851	60.71	1,192	39.09	6	.20
Massachusetts	3,914	2,481	63.39	1,430	36.54	3	.08
Michigan	7,182	4,357	60.67	2,824	39.32	1	.01
Minnesota	4,463	3,171	71.05	1,292	28.95	0	0.00
Mississippi	3,888	3,062	78.76	821	21.12	5	.13
Missouri	5,947	3,966	66.69	1,978	33.26	3	.05
Montana	815	599	73.50	215	26.38	1	.12
Nebraska	1,712	1,048	61.21	662	38.67	2	.12
Nevada	715	514	71.89	200	27.97	1	.14
New Hampshire	753	404	53.65	349	46.35	0	0.00
New Jersey	7,226	4,547	62.93	2,672	36.98	7	.10
New Mexico	1,578	940	59.57	634	40.18	4	.25
New York	13,520	8,451	62.51	5,057	37.40	12	.09
N. Carolina	6,838	5,350	78.24	1,485	21.72	3	.04
N. Dakota	782	510	65.22	271	34.65	1	.13
Ohio	9,794	6,853	69.97	2,932	29.94	9	.09
Oklahoma	4,525	2,866	63.34	1,653	36.53	6	.13
Oregon	2,270	1,341	59.07	926	40.79	3	.13
Pennsylvania	9,948	7,548	75.87	2,395	24.08	5	.05
Rhode Island	733	468	63.85	265	36.15	0	0.00
S. Carolina	3,527	2,074	58.80	1,452	41.17	1	.03
S. Dakota	779	598	76.77	181	23.23	0	0.00
Tennessee	5,205	3,261	62.65	1,940	37.27	4	.08
Texas	12,681	9,131	72.01	3,531	27.84	19	.15
Utah	1,350	1,031	76.37	317	2.74	2	.15
Vermont	1,021	556	54.46	464	45.45	1	.09
Virginia	3,561	2,521	70.79	1,034	29.04	6	.18
Washington	6,002	4,009	66.79	1,992	33.19	1	.02
W. Virginia	1,611	1,176	73.00	433	26.88	2	.12
Wisconsin	5,578	3,612	64.75	1,959	35.12	7	.13
Wyoming	518	365	70.46	153	29.54	0	0.00
Guam	178	98	55.06	79	44.38	1	.56
Puerto Rico	2,201	1,484	67.42	716	32.53	1	.05
Virgin Islands	198	57	28.79	140	70.71	1	.51
Unident. States	243	179	73.66	61	25.10	3	1.23

[1] Total of percentages may not equal 100% due to rounding.

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Table 182 - Percent of Enrollment in U.S. Department of Labor EOA Programs by Male and Female, 1971-72

States	Enrollment in USDL EOA Programs 1971-72	Male Enrollment in EOA Programs	Percent of Total[1]	Female Enrollment in EOA Programs	Percent of Total[1]	Sex Not Reported Enrollment in EOA Programs	Percent of Total[1]
U.S. TOTAL	136,797	73,463	53.70	62,762	45.88	572	.42
Alabama	2,188	1,018	46.53	1,127	51.51	5	.23
Alaska	884	494	55.88	425	48.08	3	.34
Arizona	2,857	1,435	50.23	1,418	49.63	4	.14
Arkansas	2,149	993	46.21	1,142	53.14	14	.65
California	21,831	14,289	65.45	7,451	34.13	91	.42
Colorado	1,228	642	52.28	583	47.48	3	.24
Connecticut	1,706	573	33.59	1,130	66.24	3	.18
Delaware	190	58	30.53	131	68.95	1	.53
Dist. of C.	1,531	747	48.79	781	51.01	3	.20
Florida	4,614	1,617	35.05	2,986	64.72	11	.24
Georgia	1,531	476	31.09	1,051	68.65	4	.26
Hawaii	911	541	59.39	370	40.61	0	0.00
Idaho	758	285	37.60	473	62.40	0	0.00
Illinois	3,026	1,495	49.41	1,527	50.46	4	.13
Indiana	2,099	1,210	57.65	874	41.64	15	.71
Iowa	1,112	504	45.32	602	54.14	6	.54
Kansas	1,349	649	48.11	697	51.67	3	.22
Kentucky	3,490	2,023	57.97	1,460	41.83	7	.20
Louisiana	1,620	870	53.70	747	46.11	3	.19
Maine	822	378	45.99	443	53.89	1	.12
Maryland	2,429	1,252	51.54	1,173	48.29	4	.16
Massachusetts	4,916	2,480	50.45	2,417	49.17	19	.39
Michigan	3,937	2,220	56.39	1,709	43.41	8	.20
Minnesota	2,513	1,557	61.96	950	37.80	6	.24
Mississippi	2,593	1,419	54.72	1,169	45.08	5	.19
Missouri	3,136	1,853	59.09	1,278	40.75	5	.16
Montana	774	356	45.99	418	54.01	0	0.00
Nebraska	657	449	68.34	208	31.66	0	0.00
Nevada	519	319	61.46	198	38.15	2	.39
New Hampshire	375	181	48.27	185	49.33	9	2.40
New Jersey	3,863	1,825	47.24	2,028	52.50	10	.26
New Mexico	1,581	874	55.28	705	44.59	2	.13
New York	7,216	3,370	46.70	3,809	52.79	37	.51
N. Carolina	2,964	1,428	48.18	1,513	51.05	23	.78
N. Dakota	312	181	58.01	129	41.35	2	.64
Ohio	3,459	2,167	62.65	1,264	36.54	28	.81
Oklahoma	2,223	1,246	56.05	930	41.84	47	2.12
Oregon	1,800	907	50.39	889	49.39	4	.22
Pennsylvania	6,613	3,812	57.64	2,771	41.90	30	.45
Rhode Island	876	463	52.85	413	47.15	0	0.00
S. Carolina	2,526	994	39.35	1,527	60.45	5	.20
S. Dakota	678	342	50.44	328	48.38	8	1.18
Tennessee	2,977	1,761	59.15	1,198	40.24	18	.60
Texas	8,018	4,187	52.22	3,805	47.46	26	.32
Utah	1,238	714	57.67	524	42.33	0	0.00
Vermont	550	248	45.09	298	54.18	4	.73
Virginia	1,812	999	55.13	802	44.26	11	.61
Washington	2,221	1,243	55.97	969	43.63	9	.41
W. Virginia	2,029	1,183	58.30	844	41.60	2	.10
Wisconsin	2,466	1,232	49.96	1,217	49.35	17	.69
Wyoming	213	97	45.54	115	53.99	1	.47
Guam	108	71	65.74	37	34.26	0	0.00
Puerto Rico	1,003	351	35.00	647	64.51	5	.50
Virgin Islands	51	19	37.25	32	62.75	0	0.00
Unident. States	2,255	1,366	60.58	845	37.47	44	1.95

[1] Total of percentages may not equal 100% because of rounding.

Source: Table #6, "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., May, 1973.

Federal expenditures/allocations per trainee in vocational education, MDTA and EOA programs. The average Federal allocation per trainee in MDTA was $2,028.74; see Table 185. Immediately above and below this mean were Montana ($2,051.53) and Puerto Rico ($2,020.90). The highest amount allocated per MDTA trainee was $11,879.29 in the District of Columbia, but the highest amount allocated in a State was $3,253.39 (Idaho). The lowest amount allocated per MDTA trainee was $1,003.80 (North Carolina).

The highest Federal allocation per EOA trainee was $10,878.36 in Puerto Rico, but the highest allocated per trainee in a State was $7,588.03 in Ohio, Immediately above and below the mean of $4,326.24 were New Jersey ($4,422.73) and New Hampshire ($4,274.67). The lowest Federal allocation per EOA trainee was $1,284.96 (Idaho).

The amount of the average Federal expenditure/allocation per student or trainee in vocational education, MDTA and EOA programs was $143.35. The States immediately above and below this mean were Arizona ($146.23) and Wyoming ($139.07). The highest average expenditure/allocation was $1,995.44 in the District of Columbia, but the State highest was $327.20 in Rhode Island. The lowest average expenditure/allocation was $61.15 (Florida).

In reflecting upon the gross differences in training costs on a per student basis between vocational education programs and programs operated under MDTA and EOA it should be kept in mind that MDTA and EOA allocations do include trainee subsistence. However, questions on the sharp variance do arise. Does one program underspend? Does another overspend? Is finance totally with Federal monies the wisest practice?

A rather large expenditure per person in U.S. Department of Labor programs is required to assist the disadvantaged person to overcome his or her lack of occupational and social skills. Perhaps much larger allocations for the disadvantaged in vocational education are needed to cover similar skills.

Certainly there are too little data currently available for a responsible answer or course of action. Consequently, major research efforts of national proportion are in order.

SUMMARY

The enrollment in training, job-entry, and trainee-support programs administered by the U.S. Department of Labor was reported as 346,066. Of this number, 209,269 persons were in programs funded under the Manpower Development and Training Act. Under the Economic Opportunity Act, the programs funded enrolled 136,797.

The percent of participation of minority groups in both MDTA programs and in EOA programs was greater, in almost all cases, than the percent of the minority groups in the general population. For example, in MDTA and EOA programs the percent of Negroes was 17.6 and 28.8 percentage points greater respectively than was their percent in the general population. The percent of enrollment of American Indians was also greater

Table 183 - Total Federal Expenditures for Vocational Education and Allocations for MDTA and EOA Programs, 1971-72

States	Total Federal Expenditures/ Allocations for Programs	Total Federal Expenditures for Vocational Education	Federal Allocations for MDTA Programs	Federal Allocations for EOA Programs
U.S. TOTAL	1,480,857,460[1,2,3]	464,487,460	424,553,000[1,2]	591,817,000[1,3]
Alabama	25,989,569	10,440,569	6,714,000	8,835,000
Alaska	5,361,311	911,311	1,987,000	2,463,000
Arizona	15,767,991	4,280,991	3,376,000	8,111,000
Arkansas	15,838,869	5,383,869	3,243,000	7,212,000
California	141,377,372	37,514,372	46,900,000	56,963,000
Colorado	18,156,324	4,902,324	4,790,000	8,464,000
Connecticut	16,325,558	3,872,558	6,201,000	6,252,000
Delaware	3,630,561	1,195,561	1,569,000	866,000
Dist. of C.	26,244,000	NA	12,794,000	13,450,000
Florida	31,829,776	14,776,776	4,687,000	12,366,000
Georgia	28,761,261	15,285,261	6,376,000	7,100,000
Hawaii	6,966,254	2,261,254	2,474,000	2,231,000
Idaho	6,268,909	2,418,909	2,876,000	974,000
Illinois	58,917,913	19,847,913	18,688,000	20,382,000
Indiana	24,394,997	11,607,997	5,224,000	7,563,000
Iowa	17,405,342	6,323,342	5,160,000	5,922,000
Kansas	14,083,133	5,236,133	5,474,000	3,373,000
Kentucky	35,159,385	9,282,385	5,927,000	19,950,000
Louisiana	23,072,320	10,493,320	5,849,000	6,730,000
Maine	9,682,996	2,582,996	2,111,000	4,989,000
Maryland	23,454,959	7,062,959	7,663,000	8,729,000
Massachusetts	40,795,249	10,243,249	10,229,000	20,323,000
Michigan	54,895,063	12,704,063	19,459,000	22,732,000
Minnesota	27,032,851	8,957,851	6,920,000	11,155,000
Mississippi	19,842,764	7,431,764	4,726,000	7,685,000
Missouri	28,977,232	10,025,232	7,849,000	11,103,000
Montana	7,286,716	2,181,716	1,672,000	3,433,000
Nebraska	12,583,407	3,691,407	5,063,000	3,829,000
Nevada	4,863,099	1,205,099	1,360,000	2,298,000
New Hampshire	4,547,373	1,686,373	1,258,000	1,603,000
New Jersey	49,291,480	13,574,480	18,632,000	17,085,000
New Mexico	13,351,903	3,253,903	2,840,000	7,258,000
New York	117,809,266	33,816,266	37,138,000	46,855,000
N. Carolina	32,898,072	15,634,072	6,864,000	10,400,000
N. Dakota	6,251,346	2,127,346	2,224,000	1,900,000
Ohio	67,373,469	22,497,469	18,629,000	26,247,000
Oklahoma	19,964,704	7,787,704	4,829,000	7,348,000
Oregon	17,428,528	5,209,528	4,225,000	7,994,000
Pennsylvania	72,283,281	27,661,281	20,003,000	24,619,000
Rhode Island	7,067,944	1,760,944	2,233,000	3,074,000
S. Carolina	22,275,521	9,382,521	5,386,000	7,507,000
S. Dakota	7,729,896	2,134,896	1,350,000	4,245,000
Tennessee	27,767,245	9,474,245	6,511,000	11,782,000
Texas	69,602,555	26,193,555	14,035,000	29,374,000
Utah	10,369,991	3,108,991	3,074,000	4,187,000
Vermont	3,955,379	953,379	1,429,000	1,573,000
Virginia	27,682,977	12,243,977	6,663,000	8,776,000
Washington	35,560,173	8,984,173	10,351,000	16,225,000
W. Virginia	18,439,603	5,233,603	4,670,000	8,536,000
Wisconsin	26,805,528	9,190,528	7,547,000	10,068,000
Wyoming	2,562,273	846,273	1,097,000	619,000
Puerto Rico	24,969,772	9,610,772	4,448,000	10,911,000

[1] Difference between the U.S. Total shown for each program and the sum of the amounts by State reflect either funds for national contracts, auditing or funds transferred to other agencies. The total also includes American Samoa, Guam, Trust Territories and Virgin Islands allocations for MDTA and EOA.

[2] Includes allocations for MDTA Institutional, Part-time, OJT and JOP.

[3] Includes allocations for NYC-Out of School, Operation Mainstream, Public Service Careers, CEP, and WIN.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Manpower Report of the President, U.S. Department of Labor, Washington, D.C. 1973.

Table 184 - Total Expenditures for Vocational Education and Allocations for MDTA and EOA Programs as a Percent of Total Federal Expenditures/ Allocations, 1971-72

States	Percent of Total Federal Expenditures for Vocational Education	Percent of Federal Allocations for MDTA	Percent of Federal Allocations for EOA
U.S. TOTAL	31.37	28.67	39.96
Alabama	40.17	25.83	33.99
Alaska	17.00	37.06	45.94
Arizona	27.15	21.41	51.44
Arkansas	33.99	20.47	45.53
California	26.53	33.17	40.29
Colorado	27.00	26.38	46.62
Connecticut	23.72	37.98	38.30
Delaware	32.93	43.22	23.85
Dist. of C.	NA	48.75	51.25
Florida	46.42	14.73	38.85
Georgia	53.15	22.17	24.69
Hawaii	32.46	35.51	32.03
Idaho	38.59	45.88	15.54
Illinois	33.69	31.72	34.59
Indiana	47.58	21.41	31.00
Iowa	36.33	29.65	34.02
Kansas	37.18	38.87	23.95
Kentucky	26.40	16.86	56.74
Louisiana	45.48	25.35	29.17
Maine	26.68	21.80	51.52
Maryland	30.11	32.67	37.22
Massachusetts	25.11	25.07	49.82
Michigan	23.14	35.45	41.41
Minnesota	33.14	25.60	41.26
Mississippi	37.45	23.82	38.73
Missouri	34.60	27.09	38.32
Montana	29.94	22.95	47.11
Nebraska	29.34	40.24	30.43
Nevada	24.78	27.97	47.25
New Hampshire	37.08	27.66	35.25
New Jersey	27.54	37.80	34.66
New Mexico	24.37	21.27	54.36
New York	28.70	31.52	39.77
N. Carolina	47.52	20.86	31.61
N. Dakota	34.03	35.58	30.39
Ohio	33.39	27.65	38.96
Oklahoma	39.01	24.19	36.80
Oregon	29.89	24.24	45.87
Pennsylvania	38.27	27.67	34.06
Rhode Island	24.91	31.59	43.49
S. Carolina	42.12	24.18	33.70
S. Dakota	27.62	17.46	54.92
Tennessee	34.12	23.45	42.43
Texas	37.63	20.16	42.20
Utah	29.98	29.64	40.38
Vermont	24.10	36.13	39.77
Virginia	44.23	24.07	31.70
Washington	25.26	29.11	45.63
W. Virginia	28.38	25.33	46.29
Wisconsin	34.29	28.15	37.56
Wyoming	33.03	42.81	24.16
Puerto Rico	38.49	17.81	43.70

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Based on Table 90.

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Table 185 - Average Federal Expenditure/Allocation Per Student or Trainee in Vocational Education, MDTA, and EOA Programs, 1971-72

States	Average Federal Expenditure/ Allocation Per Student or Trainee in Vocational Education, MDTA, & EOA Programs	Federal Expenditure Per Student in Vocational Education	Federal Allocation Per Trainee in MDTA	Federal Allocation Per Trainee in EOA	Rank Order by Average for All Programs
U.S. TOTAL	143.35	46.52	2,028.74	4,326.24	
Alabama	158.92	66.19	1,863.45	4,037.93	26
Alaska	236.59	43.55	2,331.37	2,786.20	8
Arizona	146.23	41.64	1,558,63	2,838.99	32
Arkansas	137.33	48.84	1,093.76	3,355.98	34
California	111.82	30.71	2,229.94	2,609.27	43
Colorado	171.63	48.29	1,577.73	6,892.51	22
Connecticut	123.41	30.35	2,083.67	3,664.71	41
Delaware	94.91	32.03	2,123.14	4,557.89	50
Dist. of C.	1,995.44	NA	11,879.29	8,785.11	1
Florida	61.15	28.87	1,122.37	2,680.10	52
Georgia	97.01	52.75	1,226.63	4,637.49	49
Hawaii	165.71	56.33	2,511.68	2,448,96	25
Idaho	180.20	72.98	3,253.39	1,284.96	17
Illinois	97.15	33.31	2,470.32	6,735.62	48
Indiana	152.65	75.11	1,655.26	3,603.14	30
Iowa	126.12	47.39	1,493.49	5,325.54	40
Kansas	135.40	52.99	1,425.15	2,500.37	38
Kentucky	205.46	56.30	2,145.13	5.716.33	15
Louisiana	127.58	59.52	2,007.21	4,154.32	39
Maine	300.30	86.56	1,334.39	6,069.34	4
Maryland	136.76	42.54	2,513.28	3,593.66	36
Massachusetts	236.32	61.69	2,613.44	4,134.05	9
Michigan	155.03	37.04	2,709.41	5,773.94	28
Minnesota	112.03	38.23	1,550.53	4,[illegible]38.92	42
Mississippi	171.00	67.83	1,215.53	2,[illegible]63.75	23
Missouri	168.76	61.65	1,319.83	3,540.50	24
Montana	215.23	67.61	2,051.53	4,435.40	11
Nebraska	176.82	53.66	2,957.36	5,828.01	18
Nevada	222.56	58.45	1,902.10	4,427.75	10
New Hampshire	172.00	66.63	1,670.65	4,274.67	21
New Jersey	153.42	43.76	2,578.47	4,422.73	29
New Mexico	240.59	62.17	1,799.75	4,590.77	7
New York	151.97	44.82	2,746.89	6,493.21	31
N. Carolina	74.70	36.31	1,003.80	3,508.77	51
N. Dakota	185.33	65.18	2,843.99	6,089.74	16
Ohio	158.43	54.47	1,902.08	7,588.03	27
Oklahoma	174.91	72.51	1,067.18	3,305.44	19
Oregon	136.15	42.03	1,861.23	4,441.11	37
Pennsylvania	210.11	84.47	2,010.76	3,722.82	13
Rhode Island	327.20	88.08	3,046.38	3,509.13	2
S. Carolina	206.89	92.33	1,527.08	2,971.89	14
S. Dakota	325.55	95.79	1,732.99	6,261.06	3
Tennessee	174.19	62.65	1,250.91	3,957.68	20
Texas	108.90	42.03	1,106.77	3,663.51	44
Utah	100.23	30.82	2,277.04	3,382.07	47
Vermont	214.11	56.40	1,399.61	2,860.00	12
Virginia	100.60	45.38	1,871.10	4,843.27	46
Washington	137.28	35.82	1,724.59	7,305.27	35
W. Virginia	275.42	82.66	2,898.82	4,207.00	5
Wisconsin	102.49	36.26	1.352.99	4,082.73	45
Wyoming	139.07	47.83	2,117.76	2,906.10	33
Puerto Rico	249.61	99.25	2,020.90	10,878.36	6

Source: U.S. Office of Education Form 3129, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1972.

Manpower Report of the President, U.S. Department of Labor, Washington, D.C., 1973.

than their percent in the general population. Oriental enrollment was higher in MDTA, as a percent, than was Oriental representation in the general population, but lower in EOA training.

Male enrollees comprised 67.9 percent of total enrollment in MDTA programs; females comprised 31.9; about 0.1 percent of all enrollees were not identified by sex.

Male enrollees made up 53.7 percent of total enrollment in EOA programs; females made up 45.8 percent; about 0.4 percent of all enrollees were not ifentified by sex.

Total Federal investment in occupationally reported training in vocational education and in the U.S. Department of Labor was $1,480,857,460. Of this total, $464,487,460, or 31.4 percent was expended through vocational education. Allocations through the U.S. Department of Labor were $424,553,000, or 28.7 percent for MDTA training and $591,817,000, or 39.9 percent, for EOA training.

The resultant cost to the Federal budget was $46.52 per student in vocational education, $2,028.74 per student in MDTA, and $4,362.24 in EOA.

Chapter VI

INDIVIDUAL STATE STATISTICS

Reports containing statistical data about vocational education have been available since 1917. The first of such reports was made by the Federal Board for Vocational Education; reports after 1933 were made by the U.S. Office of Education. The format for reporting data by the States did not change significantly until the influence of the Vocational Education Act of 1963. Actually, the first report to supply essentially new information was issued for the Fiscal year 1965. Unfortunately, data about vocational education, as influenced by the Vocational Education Act of 1963, was incomplete because not all of the States had sufficient time by the end of the reporting period to show much program change.

Beginning then, with Fiscal year 1965, new kinds of enrollment data were collected by the States. Also, beginning about the same time, a concerted effort was made concerning identification of unduplicated enrollments.

The Vocational Education Act of 1963 opened the door to expansion and availability of vocational education, and the Vocational Education Amendments of 1968 made further adjustments. However, a significant social change occurred between 1963 and 1968. In 1963, no one had ever heard of Watts; Detroit, Trenton, and Newark were just names of cities. University disturbances were largely unknown in 1963, and marches which brought to light extreme social conditions had been infrequent. But in the five-year period thereafter, an embarrassed nation took stock of its social conscience and, with determination, developed programs for many of the people who had fallen through the cracks in the social structure.

This depth of social conscience was not created by the vocational education legislation, but social conscience did have an impact upon legislation, upon vocational education data reporting, and upon program development among the States. Information was needed about the impact of vocational education upon the problems of the central cities, and the Standard Metropolitan Statistical Areas (SMSA) -- many of these problems were concerned with providing youths and adults with saleable skills, to enable them to perform effectively in the labor market, and with raising the standard of living. Both of these aspects were related in part to the program of vocational education. Other factors for which data were needed about the enrollment in vocational education in the States increased in importance. Among these factors was the potential of cooperative vocational work experience education and work study programs. Relationships of vocational education to the variety of manpower programs (Manpower Development and Training Act) became important. Availability of vocational education for the minority groups of the population was expanded and commanded attention. New concerns were developed in vocational education for appropriate occupational programs for the disadvantaged and handicapped.

On the top of all of these changes and concerns in education in general, and vocational education in particular, came, early in 1971, an educational emphasis on career education. The concept of career education is based on the theory that preparing for the world of work is a legitimate task of education, and that career considerations should begin early in the educational career of a person. The nature of career education changes with age, maturation, and school level. It begins with an awareness phase, moves into an exploration phase, then reaches an actual preparation phase (vocational education and occupational education) and, finally, adequate provision for life-long learning related to a person's career goals.

New Data Requirements

The dynamism of the new socio-economic concerns of the Nation caused the States to be responsive to a number of new data requirements about vocational education and its relationships to other educational areas. The new vocational education acts brought increased freedom and flexibility to the States both in program development and in the use of Federal funds to support vocational education.

As Project Baseline began its data collection program for Fiscal year 1972 it was found that the desired data could only be provided differentially by the States. Some States had well-defined data collection systems -- others did not. The complexities of interpretation of terminology loomed large, and some of the States could not provide the data desired. Project Baseline, following its own standards for collecting data, gathered information available from each of these States. These data are shown in the profiles of the States on the following pages.

Statistical Profiles of the States

The statistical profiles of the States are valuable in three basic ways: (1) It is possible to make comparative analyses of the States, (2) the States can learn about the data available in other States, and (3) special study (causal) questions can be raised about relationships among the States.

Data in the form of descriptive reports and special studies in the various States are needed to support and amplify statistical data. Lack of uniformity among the States for statistical data is even greater in providing descriptive data. The total data system of the Nation for vocational education needs review and perhaps some standardization. Continued study of the problem by Project Baseline should produce, prior to the completion of the total project, some specific recommendations about the kinds of statistical and descriptive data needed on a nation-wide basis. At this point (end of the second year of study) this analysis of data must be considered to be still in an experimental stage.

Statistical Profile of Alabama 1971-72

Population:

Total State: 3,444,165
15 - 19 yrs: 341,751
20 - 24 yrs: 274,544
25 - 64 yrs: 1,481,751

SMSA: 1,801,095
Central City: 881,825
Non-SMSA: 1,643,070

Negro: 903,467
Am. Indian: 2,443
Oriental: 1,705
White: 2,533,831
Other: 2,719

Total Public School Enrollment:
Elem (K-8): 830,330
Sec (9-12): 135,886
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 93,350
Post-Sec: 19,853
Adult: 44,543
Total: 157,746

Voc. Ed. Enrollment by Race:*
Negro: 54,661
Spanish Surnamed Americans: 15
American Indians: 8
Oriental: 6
Other: 111,808

Voc. Ed. Enrollment by Location:*
SMSA: 62,428
Central City: 29,733
Non-SMSA: 104,070

*Figures include NA students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 43,392
Distrib. Ed: 8,796
Health: 2,876
Cons. & Hmkg.: 38,047
Occup. H.E.: 4,922
Office: 16,445
Technical: 847
Trade & Ind: 41,634

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 3,557

Total Disadv. Voc. Ed. Enrollment: 27,396
Total Hndcpd. Voc. Ed. Enrollment: 2,720

Total Coop Enrollment: 9,704
Total Work-Study Enroll: 811

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 10,228,913
Total Fed. Expenditures: $ 10,440,569
Total State/Local Expenditures: $ 27,527,504
Expend. by Location: SMSA: $ 10,530,528
Central City: $ 3,458,815
Non-SMSA: $ 27,437,545
Total Expenditures for Disadv: $ 2,460,648
Hndcpd: $ 1,089,871

Total Occup. Reported USDL Enrollments:
MDTA: 3,603
EOA: 2,188

USDL Allocations in Occup. Reported Programs:
MDTA: 6,714,000
EOA: 8,835,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,066
MDTA OJT: 360
MDTA JOP: 1,139
MDTA Part-time: 43

Mainstream: 10,302
WIN: 172
New Careers: 1,306

PSC: 7,277
NYC-OS: 1,112
CEP: 527

Statistical Profile of Alaska 1971-72

Population:

Total State: 300,382
15 - 19 yrs: 26,768
20 - 24 yrs: 35,576
25 - 64 yrs: 128,119

SMSA: 0
Central City: 0
Non-SMSA: 300,382

Negro: 8,911
Am. Indian: 16,276
Oriental: 1,144
White: 236,767
Other: 37,284

Total Public School Enrollment:

Elem (K-8): 60,754
Sec (9-12): 20,869
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 11,854
Post-Sec: 2,814
Adult: 6,258
Total: 20,926

Voc. Ed. Enrollment by Race:*

Negro: 2,289
Spanish Surnamed Americans: 0
American Indians: 9,126
Oriental: 564
Other: 8,967

*Figures include 20 students under grade 9.

Voc. Ed. Enrollment by Location:*

SMSA: 0
Central City: 0
Non-SMSA: 20,946

Voc. Ed. Enrollment by Program:

Agriculture: 51
Distrib. Ed: 2,414
Health: 402
Cons. & Hmkg.: 2,275
Occup. H.E.: 438
Office: 7,126
Technical: 1,747
Trade & Ind: 6,473

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 380

Total Disadv. Voc. Ed. Enrollment: 11,278
Total Hndcpd. Voc. Ed. Enrollment: 671

Total Coop Enrollment: 4,744
Total Work-Study Enroll: 60

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $916,172
Total Fed. Expenditures: $ 911,311
Total State/Local Expenditures: $4,054,528
Expend. by Location: SMSA: $ 0
Central City: $0
Non-SMSA: $ 4,965,839
Total Expenditures for Disadv: $1,889,534
Hndcpd: $ 147,465

Total Occup. Reported USDL Enrollments:

MDTA: 851
EOA: 884

USDL Allocations in Occup. Reported Programs:

MDTA: 1,987,000
EOA: 2,463,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 642
MDTA OJT: 15
MDTA JOP: 192
MDTA Part-time: 2

Mainstream: 407
WIN: 259
New Careers: 13

PSC: 5
NYC-OS: 199
CEP: 1

Statistical Profile of Arizona 1971-72

Population:
Total State: 1,773,420
15 - 19 yrs: 173,424
20 - 24 yrs: 146,764
25 - 64 yrs: 753,881

SMSA: 1,321,092
Central City: 844,495
Non-SMSA: 452,328

Negro: 52,744
Am. Indian: 95,948
Oriental: 6,291
White: 1,615,678
Other: 2,759

Total Public School Enrollment:
Elem (K-8): 356,402
Sec (9-12): 143,452
Post-Sec (13-14): 49,615
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 50,279
Post-Sec: 38,318
Adult: 14,209
Total: 102,806

Voc. Ed. Enrollment by Race:*
Negro: 3,170
Spanish Surnamed Americans: 11,947
American Indians: 4,013
Oriental: 331
Other: 84,183

*Figures include 838 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 71,500
Central City: 40,130
Non-SMSA: 32,144

Voc. Ed. Enrollment by Program:
Agriculture: 4,262
Distrib. Ed: 12,603
Health: 8,062
Cons. & Hmkg.: 23,742
Occup. H.E.: 4,987
Office: 20,623
Technical: 7,134
Trade & Ind: 19,984

Occupationally Oriented Enrollments:
Gen. Business: 30,935 (estimated)
Gen. Agriculture: 0
Industrial Arts : 45,008

Career Education Enrollment: 12,000
Total # Schools Offering Voc. Ed: 156
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 3,042

Total Disadv. Voc. Ed. Enrollment: 12,075
Total Hndcpd. Voc. Ed. Enrollment: 1,171

Total Coop Enrollment: 7,379
Total Work-Study Enroll: 377

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 4,613,557
Total Fed. Expenditures: $ 4,280,991
Total State/Local Expenditures: $ 13,421,083
Expend. by Location: SMSA: $ 11,197,597
Central City: $ 8,575,510
Non-SMSA: $ 6,504,477
Total Expenditures for Disadv: $ 1,376,836
Hndcpd: $ 565,128

Total Occup. Reported USDL Enrollments:
MDTA: 2,166
EOA: 2,857

USDL Allocations in Occup. Reported Programs:
MDTA: 3,376,000
EOA: 8,111,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,515
MDTA OJT: 40
MDTA JOP: 535
MDTA Part-time: 76

Mainstream: 231
WIN: 338
New Careers: 0

PSC: 256
NYC-OS: 455
CEP: 1,577

Statistical Profile of Arkansas 1971-72

Population:

Total State: 1,923,295
15 - 19 yrs: 182,192
20 - 24 yrs: 143,039
25 - 64 yrs: 819,469

SMSA: 595,030
Central City: 334,396
Non-SMSA: 1,328,265

Negro: 352,445
Am. Indian: 2,014
Oriental: 1,330
White: 1,565,915
Other: 1,591

Total Public School Enrollment:
Elem (K-8): 322,487
Sec (9-12): 132,742
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 61,692
Post-Sec: 6,240
Adult: 42,292
Total: 110,224

Voc. Ed. Enrollment by Race:*
Negro: 24,749
Spanish Surnamed Americans: 495
American Indians: 79
Oriental: 512
Other: 90,048

Voc. Ed. Enrollment by Location:*
SMSA: 28,825
Central City: 12,332
Non-SMSA: 87,058

*Figures include 5,659 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 22,785
Distrib. Ed: 5,436
Health: 3,018
Cons. & Hmkg.: 38,259
Occup. H.E.: 989
Office: 11,762
Technical: 121
Trade & Ind: 24,156

Occupationally Oriented Enrollments:
Gen. Business: 50,000
Gen. Agriculture: 225
Industrial Arts : NA

Career Education Enrollment: 270
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : 876
Total # Voc. Ed. Teachers : 1,968

Total Disadv. Voc. Ed. Enrollment: 32,905
Total Hndcpd. Voc. Ed. Enrollment: 3,442
Total Coop Enrollment: 3,171
Total Work-Study Enroll: 390

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $5,664,682
Total Fed. Expenditures: $ 5,383,869
Total State/Local Expenditures: $10,822,749
Expend. by Location: SMSA: $4,820,535
Central City: $ 2,147,013
Non-SMSA: $11,386,083
Total Expenditures for Disadv: $3,750,455
Hndcpd: $ 904,161

Total Occup. Reported USDL Enrollments:
MDTA: 2,965
EOA: 2,149

USDL Allocations in Occup. Reported Programs:
MDTA: 3,243,000
EOA: 7,212,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,790
MDTA OJT: 181
MDTA JOP: 994
MDTA Part-time: 0

Mainstream: 174
WIN: 212
New Careers: 60

PSC: 237
NYC-OS: 949
CEP: 517

Statistical Profile of California 1971-72

Population:

Total State: 19,953,134
15 - 19 yrs: 1,817,379
20 - 24 yrs: 1,740,966
25 - 64 yrs: 9,069,321

SMSA: 18,500,006
Central City: 7,238,502
Non-SMSA: 1,453,128

Negro: 1,400,143
Am. Indian: 91,018
Oriental: 383,411
White: 17,761,032
Other: 317,530

Total Public School Enrollment:
Elem (K-8): 3,107,862
Sec (9-12): 1,316,402
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 580,211
Post-Sec: 329,635
Adult: 311,663
Total: 1,211,509

Voc. Ed. Enrollment by Race:*
Negro: 114,754
Spanish Surnamed Americans: 197,428
American Indians: 4,936
Oriental: 27,146
Other: 889,656

*Figures include 12,411 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 1,058,067
Central City: 501,627
Non-SMSA: 175,853

Voc. Ed. Enrollment by Program:
Agriculture: 53,900
Distrib. Ed: 70,255
Health: 43,011
Cons. & Hmkg.: 198,558
Occup. H.E.: 31,973
Office: 381,413
Technical: 54,552
Trade & Ind: 286,128

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 21,709

Total Disadv. Voc. Ed. Enrollment: 174,888
Total Hndcpd. Voc. Ed. Enrollment: 17,248

Total Coop Enrollment: 30,752
Total Work-Study Enroll: 3,513

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 36,289,585
Total Fed. Expenditures: $37,514,372
Total State/Local Expenditures: $ 222,241,948
Expend. by Location: SMSA: $ 204,701,239
Central City: $104,799,775
Non-SMSA: $ 54,055,083
Total Expenditures for Disadv: $ 26,716,857
Hndcpd: $5,170,677

Total Occup. Reported USDL Enrollments:
MDTA: 21,032
EOA: 21,831

USDL Allocations in Occup. Reported Programs:
MDTA: 46,900,000
EOA: 56,963,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 12,756
MDTA OJT: 724
MDTA JOP: 7,235
MDTA Part-time: 317

Mainstream: 493
WIN: 15,083
New Careers: 227

PSC: 540
NYC-OS: 3,562
CEP: 1,926

Statistical Profile of Colorado 1971-72

Population:
Total State: 2,207,259
15 - 19 yrs: 217,451
20 - 24 yrs: 204,508
25 - 64 yrs: 953,191

SMSA: 1,581,739
Central City: 747,191
Non-SMSA: 625,520

Negro: 66,411
Am. Indian: 8,836
Oriental: 9,320
White: 2,112,352
Other: 10,340

Total Public School Enrollment:
Elem (K-8): 396,891
Sec (9-12): 157,782
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 52,043
Post-Sec: 14,964
Adult: 34,514
Total: 101,521

Voc. Ed. Enrollment by Race:*
Negro: 2,797
Spanish Surnamed Americans: 12,036
American Indians: 633
Oriental: 1,767
Other: 84,288
*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 67,224
Central City: 35,908
Non-SMSA: 33,543

Voc. Ed. Enrollment by Program:
Agriculture: 4,243
Distrib. Ed: 11,529
Health: 3,046
Cons. & Hmkg.: 28,620
Occup. H.E.: 3,731
Office: 20,480
Technical: 4,203
Trade & Ind: 9,574

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 163
Total # Voc. Ed. Programs : 2,152
Total # Voc. Ed. Teachers : 3,371

Total Disadv. Voc. Ed. Enrollment: 1,549
Total Hndcpd. Voc. Ed. Enrollment: 2,549
Total Coop Enrollment: 1,019
Total Work-Study Enroll: 566

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $5,310,842
Total Fed. Expenditures: $ 4,902,324
Total State/Local Expenditures: $24,020,726
Expend. by Location: SMSA: $ 15,026,894
Central City: $ 5,534,637
Non-SMSA: $ 13,896,156
Total Expenditures for Disadv: $1,556,440
Hndcpd: $1,363,464

Total Occup. Reported USDL Enrollments:
MDTA: 3,036
EOA: 1,228

USDL Allocations in Occup. Reported Programs:
MDTA: 4,790,000
EOA: 8,464,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,295
MDTA OJT: 142
MDTA JOP: 520
MDTA Part-time: 79

Mainstream: 24
WIN: 489
New Careers: 0

PSC: 200
NYC-OS: 220
CEP: 295

Statistical Profile of Connecticut 1971-72

Population:

Total State: 3,031,709
15 - 19 yrs: 264, 053
20 - 24 yrs: 229,794
25 - 64 yrs: 1,395,515

SMSA: 2,504,802
Central City: 1,066,941
Non-SMSA. 526,907

Negro: 181,177
Am. Indian: 2,222
Oriental: 3,830
White: 2,835,458
Other: 9,022

Total Public School Enrollment:
Elem (K-8): 464,253
Sec (9-12): 188,121
Post-Sec (13-14): 6,977
Adult : 24,830

Total Voc. Ed. Enrollment:
Sec: 95,802
Post-Sec: 6,977
Adult: 24,830
Total: 127,609

Voc. Ed. Enrollment by Race:*
Negro: NA
Spanish Surnamed Americans: NA
American Indians: NA
Oriental: NA
Other: NA

Voc. Ed. Enrollment by Location:*
SMSA: 129,290
Central City: 55,293
Non-SMSA: 45,746

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 2,059
Distrib. Ed: 4,256
Health: 2,728
Cons. & Hmkg.: 27,438
Occup. H.E.: 752
Office: 50,790
Technical: 10,208
Trade & Ind: 23,562

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 4,854
Total # Schools Offering Voc. Ed: 166
Total # Voc. Ed. Programs : 934
Total # Voc. Ed. Teachers : 2,913

Total Disadv. Voc. Ed. Enrollment: 53,897
Total Hndcpd. Voc. Ed. Enrollment: 1,125
Total Coop Enrollment: 5,978
Total Work-Study Enroll: 388

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $5,369,515
Total Fed. Expenditures: $ 3,872,558
Total State/Local Expenditures: $35,252,211
Expend. by Location: SMSA: $31,342,485
Central City: $20,879,412
Non-SMSA: $ 7,782,284
Total Expenditures for Disadv: $ 6,085,519
Hndcpd: $ 629,165

Total Occup. Reported USDL Enrollments:
MDTA: 2,976
EOA: 1,706

USDL Allocations in Occup. Reported Programs:
MDTA: 6,201,000
EOA: 6,252,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,952
MDTA OJT: 242
MDTA JOP: 653
MDTA Part-time: 129
Mainstream: 42
WIN: 792
New Careers: 11
PSC: 121
NYC-OS: 154
CEP: 586

Statistical Profile of Delaware 1971-72

Population:

Total State: 548,104
15 - 19 yrs: 51,332
20 - 24 yrs: 43,785
25 - 64 yrs: 243,772

SMSA: 385,586
Central City: 80,386
Non-SMSA: 162,248

Negro: 78,276
Am. Indian: 656
Oriental: 918
White: 466,459
Other: 1,795

Total Public School Enrollment:

Elem (K-8): 94,691
Sec (9-12): 40,322
Post-Sec (13-14): 2,781
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 32,049
Post-Sec: 1,249
Adult: 4,025
Total: 37,323

Voc. Ed. Enrollment by Race:*

Negro: 15,633
Spanish Surnamed Americans: 201
American Indians: 9
Oriental: 64
Other: 27,520

*Figures include 6,104 students under grade 9.

Voc. Ed. Enrollment by Location:*

SMSA: 25,125
Central City: 2,636
Non-SMSA: 18,302

Voc. Ed. Enrollment by Program:

Agriculture: 1,216
Distrib. Ed: 2,276
Health: 729
Cons. & Hmkg.: 6,374
Occup. H.E.: 1,231
Office: 12,622
Technical: 781
Trade & Ind: 8,586

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 3
Total # Voc. Ed. Programs : 110
Total # Voc. Ed. Teachers : 902

Total Disadv. Voc. Ed. Enrollment: 11,108
Total Hndcpd. Voc. Ed. Enrollment: 5,084

Total Coop Enrollment: 2,520
Total Work-Study Enroll: 203

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 1,326,326
Total Fed. Expenditures: $ 1,195,561
Total State/Local Expenditures: $ 7,464,810
Expend. by Location: SMSA: $5,234,910
Central City: $ 0
Non-SMSA: $3,425,461
Total Expenditures for Disadv: $ 408,845
Hndcpd: $ 258,851

Total Occup. Reported USDL Enrollments:

MDTA: 739
EOA: 190

USDL Allocations in Occup. Reported Program

MDTA: 1,569,000
EOA: 866,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 631
MDTA OJT: 8
MDTA JOP: 100
MDTA Part-time: 0

Mainstream: 1
WIN: 55
New Careers: 0

PSC: 17
NYC-OS: 116
CEP: 1

Statistical Profile of District of Columbia 1971-72

Population:
Total State: 756,510
15 - 19 yrs: 65,609
20 - 24 yrs: 79,638
25 - 64 yrs: 352,079

SMSA: 756,510
Central City: 756,510
Non-SMSA: 0

Negro: 537,712
Am. Indian: 956
Oriental: 3,233
White: 209,272
Other: 5,337

Total Public School Enrollment:
Elem (K-8): 112,833
Sec (9-12): 26,923
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 5,706
Post-Sec: 1,653
Adult: 3,454
Total: 10,813

Voc. Ed. Enrollment by Race:*
Negro: 11,297
Spanish Surnamed Americans: 900
American Indians: 2
Oriental: 385
Other: 0
*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 15,049
Central City: 15,049
Non-SMSA: 0

Voc. Ed. Enrollment by Program:
Agriculture: 178
Distrib. Ed: 860
Health: 650
Cons. & Hmkg.: 2,899
Occup. H.E.: 309
Office: 842
Technical: 109
Trade & Ind: 2,479

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : 7,048

Career Education Enrollment: 180
Total # Schools Offering Voc. Ed: 6
Total # Voc. Ed. Programs : 193
Total # Voc. Ed. Teachers : NA

Total Disadv. Voc. Ed. Enrollment: 4,000
Total Hndcpd. Voc. Ed. Enrollment: 310
Total Coop Enrollment: 532
Total Work-Study Enroll: 75

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ NA
Total Fed. Expenditures: $ NA
Total State/Local Expenditures: $ NA
Expend. by Location: SMSA: $ NA
Central City: $ NA
Non-SMSA: $ NA
Total Expenditures for Disadv: $ NA
Hndcpd: $ NA

Total Occup. Reported USDL Enrollments:
MDTA: 1,077
EOA: 1,531

USDL Allocations in Occup. Reported Programs:
MDTA: 12,794,000
EOA: 13,450,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 893
MDTA OJT: 156
MDTA JOP: 23
MDTA Part-time: 0
Mainstream: 51
WIN: 74
New Careers: 2
PSC: 106
NYC-OS: 582
CEP: 716

Statistical Profile of Florida 1971-72

Population:
Total State: 6,789,443
15 - 19 yrs: 576,776
20 - 24 yrs: 496,517
25 - 64 yrs: 2,976,877

SMSA: 4,656,993
Central City: 1,945,662
Non-SMSA: 2,132,450

Negro: 1,041,651
Am. Indian: 6,677
Oriental: 7,223
White: 5,719,343
Other: 14,549

Total Public School Enrollment:
Elem (K-8): 1,444,357
Sec (9-12): 464,302
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 260,082
Post-Sec: 75,173
Adult: 176,265
Total: 511,750

Voc. Ed. Enrollment by Race:*
Negro: 124,523
Spanish Surnamed Americans: 23,033
American Indians: 1,364
Oriental: 1,038
Other: 454,920

Voc. Ed. Enrollment by Location:*
SMSA: 337,143
Central City: 166,927
Non-SMSA: 267,735

*Figures include 93,128 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 26,602
Distrib. Ed: 50,031
Health: 19,803
Cons. & Hmkg.: 151,271
Occup. H.E.: 22,953
Office: 100,086
Technical: 28,294
Trade & Ind: 89,920

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 10,876

Total Disadv. Voc. Ed. Enrollment: 94,983
Total Hndcpd. Voc. Ed. Enrollment: 9,502
Total Coop Enrollment: 33,377
Total Work-Study Enroll: 1,531

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $14,469,576
Total Fed. Expenditures: $ 14,776,776
Total State/Local Expenditures: $ 79,690,212
Expend. by Location: SMSA: $53,281,072
Central City: $30,076,832
Non-SMSA: $41,185,916
Total Expenditures for Disadv: $ 11,995,108
Hndcpd: $ 3,254,498

Total Occup. Reported USDL Enrollments:
MDTA: 4,176
EOA: 4,614

USDL Allocations in Occup. Reported Programs
MDTA: 4,687,000
EOA: 12,366,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 3,129
MDTA OJT: 194
MDTA JOP: 853
MDTA Part-time: 0

Mainstream: 177
WIN: 1,385
New Careers: 32

PSC: 160
NYC-OS: 999
CEP: 1,861

Statistical Profile of Georgia 1971-72

Population:
Total State: 4,589,575
15 - 19 yrs: 442,571
20 - 24 yrs: 416,949
25 - 64 yrs: 1,989,653

SMSA: 2,280,230
Central City: 1,024,400
Non-SMSA: 2,309,345

Negro: 1,187,149
Am. Indian: 2,347
Oriental: 3,420
White: 3,391,242
Other: 14,549

Total Public School Enrollment:
Elem (K-8): 836,769
Sec (9-12): 323,286
Post-Sec (13-14): 43,096
Adult : 121,120

Total Voc. Ed. Enrollment:
Sec: 162,359
Post-Sec: 26,262
Adult: 101,120
Total: 289,741

Voc. Ed. Enrollment by Race:*
Negro: 85,506
Spanish Surnamed Americans: 176
American Indians: 484
Oriental: 209
Other: 219,229

Voc. Ed. Enrollment by Location:*
SMSA: 156,911
Central City: 113,346
Non-SMSA: 9,454

*Figures include 15,863 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 37,745
Distrib. Ed: 12,864
Health: 6,514
Cons. & Hmkg.: 70,683
Occup. H.E.: 11,150
Office: 84,095
Technical: 7,762
Trade & Ind: 55,895

Occupationally Oriented Enrollments:
Gen. Business: 56,726
Gen. Agriculture: 0
Industrial Arts : 47,162

Career Education Enrollment: 17,200
Total # Schools Offering Voc. Ed: 367
Total # Voc. Ed. Programs : 276
Total # Voc. Ed. Teachers : 6,223

Total Disadv. Voc. Ed. Enrollment: 76,359
Total Hndcpd. Voc. Ed. Enrollment: 20,908
Total Coop Enrollment: 15,659
Total Work-Study Enroll: 1,155

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 13,176,422
Total Fed. Expenditures: $15,285,261
Total State/Local Expenditures: $ 36,979,008
Expend. by Location: SMSA: $ 16,366,573
Central City: $ 13,441,493
Non-SMSA: $ 35,897,696
Total Expenditures for Disadv: $ 4,486,004
Hndcpd: $ 1,572,443

Total Occup. Reported USDL Enrollments:
MDTA: 5,193
EOA: 1,531

USDL Allocations in Occup. Reported Programs:
MDTA: 6,376,000
EOA: 7,100,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,912
MDTA OJT: 746
MDTA JOP: 1,461
MDTA Part-time: 79

Mainstream: 104
WIN: 292
New Careers: 9

PSC: 114
NYC-OS: 541
CEP: 480

Statistical Profile of Hawaii 1971-72

Population:

Total State: 768,561*
15 - 19 yrs: 71,843
20 - 24 yrs: 81,555
25 - 64 yrs: 340,588

SMSA: 629,176*
Central City. 324,871
Non-SMSA: 139,385*

Negro: 7,573
Am. Indian: 1,126
Oriental: 269,346
White: 298,160
Other: 192,356

*Total population amended to 790,413, SMSA to 645,307 and Non-SMSA to 145,106.

Total Public School Enrollment:
Elem (K-8): 130,141
Sec (9-12): 52,322
Post-Sec (13-14): 13,010
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 18,935
Post-Sec: 10,107
Adult: 11,100
Total: 40,142

Voc. Ed. Enrollment by Race:*
Negro: NA
Spanish Surnamed Americans: NA
American Indians: NA
Oriental: NA
Other: NA

Voc. Ed. Enrollment by Location:*
SMSA: 34,021
Central City: 0
Non-SMSA: 11,079

*Figures include NA students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 2,348
Distrib. Ed: 1,680
Health: 461
Cons. & Hmkg.: 10,681
Occup. H.E.: 407
Office. 10,664
Technical: 628
Trade & Ind: 12,612

Occupationally Oriented Enrollments:
Gen. Business: 8,675
Gen. Agriculture: 468
Industrial Arts : 14,030

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 17
Total # Voc. Ed. Programs : 549
Total # Voc. Ed. Teachers : 1,002

Total Disadv. Voc. Ed. Enrollment: 8,663
Total Hndcpd. Voc. Ed. Enrollment: 1,414

Total Coop Enrollment: 1,308
Total Work-Study Enroll: 413

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 2,180,560
Total Fed. Expenditures: $ 2,261,254
Total State/Local Expenditures: $ 5,545,115
Expend. by Location: SMSA: $ 5,146,016
Central City: $ NA
Non-SMSA: $ 2,390,353
Total Expenditures for Disadv: $ 720,012
Hndcpd: $ 184,698

Total Occup. Reported USDL Enrollments:
MDTA: 985
EOA: 911

USDL Allocations in Occup. Reported Programs:
MDTA: 2,474,000
EOA: 2,231,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 841
MDTA OJT: 28
MDTA JOP: 116
MDTA Part-time: 0

Mainstream: 82
WIN: 203
New Careers: 0

PSC: 69
NYC-OS: 330
CEP: 227

Statistical Profile of Idaho 1971-72

Population:

Total State:	712,567	SMSA:	112,230	Negro:	2,130
15 - 19 yrs:	74,065	Central City:	74,990	Am. Indian:	6,687
20 - 24 yrs:	53,326	Non-SMSA:	600,337	Oriental:	2,753
25 - 64 yrs:	301,102			White:	698,802
				Other:	2,195

Total Public School Enrollment:		Total Voc. Ed. Enrollment:	
Elem (K-8):	128,707	Sec:	22,377
Sec (9-12):	60,817	Post-Sec:	3,255
Post-Sec (13-14):	NA	Adult:	7,514
Adult :	NA	Total:	33,146

Voc. Ed. Enrollment by Race:*		Voc. Ed. Enrollment by Location:*	
Negro:	114	SMSA:	3,580
Spanish Surnamed Americans:	614	Central City:	2,834
American Indians:	509	Non-SMSA:	29,875
Oriental:	183		
Other:	32,035		

*Figures include 309 students under grade 9.

Voc. Ed. Enrollment by Program:		Occupationally Oriented Enrollments:	
Agriculture:	5,336	Gen. Business:	2,250
Distrib. Ed:	1,271	Gen. Agriculture:	NA
Health:	1,548	Industrial Arts :	11,025
Cons. & Hmkg.:	12,505		
Occup. H.E.:	348	Career Education Enrollment:	NA
Office:	5,583	Total # Schools Offering Voc. Ed:	124
Technical:	597	Total # Voc. Ed. Programs :	864
Trade & Ind:	5,471	Total # Voc. Ed. Teachers :	969

Total Disadv. Voc. Ed. Enrollment:	1,658	Total Coop Enrollment:	1,431
Total Hndcpd. Voc. Ed. Enrollment:	198	Total Work-Study Enroll:	163

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 2,357,011 Total Fed. Expenditures: $2,418,909

Total State/Local Expenditures: $ 4,888,218

Expend. by Location: SMSA: $ 267,491 Central City: $ 184,353

Non-SMSA: $ 7,039,636

Total Expenditures for Disadv: $ 469,150 Hndcpd: $ 149,190

Total Occup. Reported USDL Enrollments:		USDL Allocations in Occup. Reported Programs:	
MDTA:	884	MDTA:	2,876,000
EOA:	758	EOA:	974,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.:	642	Mainstream:	184	PSC:	32
MDTA OJT:	79	WIN:	303	NYC-OS:	239
MDTA JOP:	163	New Careers:	0	CEP:	0
MDTA Part-time:	0				

Statistical Profile of Illinois 1971-72

Population:

Total State: 11,113,976
15 - 19 yrs: 1,011,062
20 - 24 yrs: 843,644
25 - 64 yrs: 4,995,386

SMSA: 8,903,065
Central City: 4,075,563
Non-SMSA: 2,210,911

Negro: 1,425,674
Am. Indian: 11,413
Oriental: 31,773
White: 9,600,381
Other: 44,735

Total Public School Enrollment:
Elem (K-8): 1,678,517
Sec (9-12): 695,259
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 479,099
Post-Sec: 89,168
Adult: 27,612
Total: 595,879

Voc. Ed. Enrollment by Race:*
Negro: 137,970
Spanish Surnamed Americans: 69,007
American Indians: 13,796
Oriental: 41,393
Other: 1,117,548

Voc. Ed. Enrollment by Location:*
SMSA: 837,828
Central City: 352,552
Non-SMSA: 541,886

*Figures include 783,835 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 30,335
Distrib. Ed: 23,808
Health: 17,682
Cons. & Hmkg.: 28,572
Occup. H.E.: 49,169
Office: 230,303
Technical: 13,248
Trade & Ind: 202,762

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 602
Total # Voc. Ed. Programs : 9,599
Total # Voc. Ed. Teachers : 16,497

Total Disadv. Voc. Ed. Enrollment: 65,823
Total Hndcpd. Voc. Ed. Enrollment: 13,894
Total Coop Enrollment: 18,427
Total Work-Study Enroll: 840

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $19,847,913
Total Fed. Expenditures: $ 19,847,913
Total State/Local Expenditures: $169,251,398
Expend. by Location: SMSA: $121,887,230
Central City: $ 57,295,843
Non-SMSA: $ 87,059,994
Total Expenditures for Disadv: $22,266,374
Hndcpd: $ 4,474,563

Total Occup. Reported USDL Enrollments:
MDTA: 7,565
EOA: 3,026

USDL Allocations in Occup. Reported Programs
MDTA: 18,688,000
EOA: 20,382,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 5,279
MDTA OJT: 598
MDTA JOP: 1,594
MDTA Part-time: 94
Mainstream: 256
WIN: 106
New Careers: 5
PSC: 316
NYC-OS: 1,174
CEP: 1,169

Statistical Profile of Indiana 1971-72

Population:

Total State: 5,193,669
15 - 19 yrs: 502,240
20 - 24 yrs: 414,724
25 - 64 yrs: 2,252,293

SMSA: 3,213,598
Central City: 1,789,622
Non-SMSA: 1,980,071

Negro: 357,464
Am. Indian: 3,887
Oriental: 4,394
White: 4,820,324
Other: 7,600

Total Public School Enrollment:

Elem (K-8): 866,192
Sec (9-12): 364,039
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 101,506
Post-Sec: 7,529
Adult: 45,521
Total: 154,556

Voc. Ed. Enrollment by Race:*

Negro: 17,305
Spanish Surnamed Americans: 3,461
American Indians: 0
Oriental: 0
Other: 133,790

Voc. Ed. Enrollment by Location:*

SMSA: 77,277
Central City: 38,637
Non-SMSA: 77,279

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 24,353
Distrib. Ed: 6,704
Health: 4,136
Cons. & Hmkg.: 54,874
Occup. H.E.: 2,959
Office: 27,516
Technical: 1,804
Trade & Ind: 30,197

Occupationally Oriented Enrollments:

Gen. Business: 75,697
Gen. Agriculture: 6,322
Industrial Arts : 89,220

Career Education Enrollment: 550
Total # Schools Offering Voc. Ed: 367
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 3,769

Total Disadv. Voc. Ed. Enrollment: 4,619
Total Hndcpd. Voc. Ed. Enrollment: 1,091

Total Coop Enrollment: 10,355
Total Work-Study Enroll: 453

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 11,607,997
Total Fed. Expenditures: $ 11,607,997
Total State/Local Expenditures: $ 24,202,155
Expend. by Location: SMSA: $ 16,995,708
Central City: $ 6,945,094
Non-SMSA: $ 18,814,444
Total Expenditures for Disadv: $ 7,022,138
Hndcpd: $1,427,379

Total Occup. Reported USDL Enrollments:

MDTA: 3,156
EOA: 2,099

USDL Allocations in Occup. Reported Programs:

MDTA: 5,225,000
EOA: 7,563,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 2,309
MDTA OJT: 599
MDTA JOP: 248
MDTA Part-time: 0

Mainstream: 325
WIN: 182
New Careers: 0

PSC: 216
NYC-OS: 1,041
CEP: 335

Statistical Profile of Iowa 1971-72

Population:
Total State: 2,824,376
15 - 19 yrs: 273,475
20 - 24 yrs: 203,691
25 - 64 yrs: 1,190,164

SMSA: 1,005,569
Central City: 631,666
Non-SMSA: 1,818,807

Negro: 32,596
Am. Indian: 2,992
Oriental: 2,002
White: 2,782,762
Other: 4,024

Total Public School Enrollment:
Elem (K-8): 448,620
Sec (9-12): 204,269
Post-Sec (13-14): 20,844
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 52,394
Post-Sec: 15,996
Adult: 65,052
Total: 133,442

Voc. Ed. Enrollment by Race:*
Negro: 4,424
Spanish Surnamed Americans: 539
American Indians: 192
Oriental: 83
Other: 128,204

Voc. Ed. Enrollment by Location:*
SMSA: 29,572
Central City: 24,242
Non-SMSA: 79,628

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 29,813
Distrib. Ed: 4,336
Health: 11,430
Cons. & Hmkg.: 47,720
Occup. H.E.: 2,240
Office: 11,945
Technical: 1,453
Trade & Ind: 24,505

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 317
Total # Voc. Ed. Programs : 4,139
Total # Voc. Ed. Teachers : 5,804

Total Disadv. Voc. Ed. Enrollment: 17,920
Total Hndcpd. Voc. Ed. Enrollment: 2,256
Total Coop Enrollment: 8,014
Total Work-Study Enroll: 259

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 6,832,911
Total Fed. Expenditures: $6,323,342
Total State/Local Expenditures: $ 28,207,335
Expend. by Location: SMSA: $ 18,731,238
Central City: $18,471,870
Non-SMSA: $ 15,799,439
Total Expenditures for Disadv: $ 2,899,553*
Hndcpd: $918,141*
* Partial Figures only

Total Occup. Reported USDL Enrollments:
MDTA: 3,455
EOA: 1,112

USDL Allocations in Occup. Reported Programs:
MDTA: 5,160,000
EOA: 5,992,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,254
MDTA OJT: 202
MDTA JOP: 930
MDTA Part-time: 69

Mainstream: 116
WIN: 135
New Careers: 0

PSC: 31
NYC-OS: 298
CEP: 532

Statistical Profile of Kansas 1971-72

Population:

Total State:	2,246,578	SMSA:	949,181	Negro:	106,997
15 - 19 yrs:	217,212	Central City:	401,565	Am. Indian:	8,672
20 - 24 yrs:	188,422	Non-SMSA:	1,297,397	Oriental:	2,817
25 - 64 yrs:	959,765			White:	2,122,068
				Other:	6,044

Total Public School Enrollment:		Total Voc. Ed. Enrollment:	
Elem (K-8):	323,780	Sec:	42,813
Sec (9-12):	162,516	Post-Sec:	9,283
Post-Sec (13-14):	NA	Adult:	56,723
Adult :	NA	Total:	98,819

Voc. Ed. Enrollment by Race:*		Voc. Ed. Enrollment by Location:*	
Negro:	6,527	SMSA:	34,617
Spanish Surnamed Americans:	1,436	Central City:	28,537
American Indians:	344	Non-SMSA:	70,412
Oriental:	88		
Other:	98,634		

*Figures include 6,210 students under grade 9.

Voc. Ed. Enrollment by Program:		Occupationally Oriented Enrollments:	
Agriculture:	10,142	Gen. Business:	NA
Distrib. Ed:	6,840	Gen. Agriculture:	NA
Health:	1,390	Industrial Arts :	50,000
Cons. & Hmkg.:	23,426		
Occup. H.E.:	1,947	Career Education Enrollment:	NA
Office:	12,092	Total # Schools Offering Voc. Ed:	259
Technical:	866	Total # Voc. Ed. Programs :	1,571
Trade & Ind:	40,545	Total # Voc. Ed. Teachers :	2,753

Total Disadv. Voc. Ed. Enrollment:	9,298	Total Coop Enrollment:	3,013
Total Hndcpd. Voc. Ed. Enrollment:	3,904	Total Work-Study Enroll:	478

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation:	$ 5,817,103	Total Fed. Expenditures:	$5,236,133
Total State/Local Expenditures:	$ 14,387,028		
Expend. by Location: SMSA:	$ 7,016,929	Central City:	$ 5,096,271
Non-SMSA:	$ 12,606,232		
Total Expenditures for Disadv:	$ 967,980	Hndcpd:	$ 353,585

Total Occup. Reported USDL Enrollments:		USDL Allocations in Occup. Reported Programs:	
MDTA:	3,841	MDTA:	5,474,000
EOA:	1,349	EOA:	3,373,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.:	29	Mainstream:	77	PSC:	571
MDTA OJT:	68	WIN:	299	NYC-OS:	402
MDTA JOP:	727	New Careers:	0	CEP:	0
MDTA Part-time:	17				

Statistical Profile of Kentucky 1971-72

Population:
Total State: 3,218,706
15 - 19 yrs: 318,756
20 - 24 yrs: 265,282
25 - 64 yrs: 1,375,506

SMSA: 1,288,024
Central City: 549,183
Non-SMSA: 1,930,682

Negro: 230,793
Am. Indian: 1,531
Oriental: 1,653
White: 2,981,766
Other: NA

Total Public School Enrollment:
Elem (K-8): 521,604
Sec (9-12): 216,804
Post-Sec (13-14): 97,984
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 99,169
Post-Sec: 12,844
Adult: 52,856
Total: 164,869

Voc. Ed. Enrollment by Race:*
Negro: 19,777
Spanish Surnamed Americans: 209
American Indians: 494
Oriental: 55
Other: 144,344

Voc. Ed. Enrollment by Location:*
SMSA: 38,548
Central City: 17,710
Non-SMSA: 126,321

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 20,190
Distrib. Ed: 11,943
Health: 3,325
Cons. & Hmkg.: 51,131
Occup. H.E.: 2,097
Office: 23,219
Technical: 1,252
Trade & Ind: 36,625

Occupationally Oriented Enrollments:
Gen. Business: 42,000 (Duplicated)
Gen. Agriculture: 200
Industrial Arts : 43,276

Career Education Enrollment: 41,090
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 3,401

Total Disadv. Voc. Ed. Enrollment: 25,910
Total Hndcpd. Voc. Ed. Enrollment: 3,665

Total Coop Enrollment: 4,209
Total Work-Study Enroll: 1,001

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 9,300,417
Total Fed. Expenditures: $ 9,282,385
Total State/Local Expenditures: $ 25,196,703
Expend. by Location: SMSA: $ 13,860,593
Central City: $3,206,555
Non-SMSA: $ 20,618,495
Total Expenditures for Disadv: $ 2,323,850
Hndcpd: $ 806,800

Total Occup. Reported USDL Enrollments:
MDTA: 2,763
EOA: 3,490

USDL Allocations in Occup. Reported Programs:
MDTA: 5,297,000
EOA: 19,950,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,839
MDTA OJT: 242
MDTA JOP: 682
MDTA Part-time: 0

Mainstream: 517
WIN: 350
New Careers: 0

PSC: 93
NYC-OS: 1,060
CEP: 1,470

Statistical Profile of Louisiana 1971-72

Population:

Total State: 3,641,306
15 - 19 yrs: 375,958
20 - 24 yrs: 299,309
25 - 64 yrs: 1,502,893

SMSA: 1,996,197
Central City: 1,142,809
Non-SMSA: 1,645,109

Negro: 1,086,832
Am. Indian: 5,294
Oriental: 2,463
White: 2,541,498
Other: 5,219

Total Public School Enrollment:
Elem (K-8): 858,635
Sec (9-12): 239,171
Post-Sec (13-14): 27,956
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 126,184
Post-Sec: 19,375
Adult: 30,753
Total: 176,312

Voc. Ed. Enrollment by Race:*
Negro: 65,221
Spanish Surnamed Americans: 691
American Indians: 42
Oriental: 140
Other: 110,293

Voc. Ed. Enrollment by Location:*
SMSA: 62,646
Central City: 41,011
Non-SMSA: 113,741

*Figures include 75 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 19,363
Distrib. Ed: 10,153
Health: 4,547
Cons. & Hmkg.: 54,550
Occup. H.E.: 1,995
Office: 54,914
Technical: 3,597
Trade & Ind: 27,232

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 0
Total # Schools Offering Voc. Ed: 497
Total # Voc. Ed. Programs : 3,263
Total # Voc. Ed. Teachers : 3,174

Total Disadv. Voc. Ed. Enrollment: 69,050
Total Hndcpd. Voc. Ed. Enrollment: 1,163

Total Coop Enrollment: 6,056
Total Work-Study Enroll: 995

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $10,785,385
Total Fed. Expenditures: $ 10,493,320
Total State/Local Expenditures: $ 21,681,761
Expend. by Location: SMSA: $13,459,341
Central City: $ 11,599,016
Non-SMSA: $18,715,741
Total Expenditures for Disadv: $7,310,553
Hndcpd: $2,170,696

Total Occup. Reported USDL Enrollments:
MDTA: 2,914
EOA: 1,620

USDL Allocations in Occup. Reported Programs:
MDTA: 5,849,000
EOA: 1,730,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,602
MDTA OJT: 250
MDTA JOP: 979
MDTA Part-time: 83

Mainstream: 111
WIN: 165
New Careers: 5

PSC: 71
NYC-OS: 944
CEP: 324

Statistical Profile of Maine 1971-72

Population:

Total State: 992,048
15 - 19 yrs: 93,361
20 - 24 yrs: 75,030
25 - 64 yrs: 423,084

SMSA: 214,099
Central City: 129,266
Non-SMSA: 777,949

Negro: 2,800
Am. Indian: 2,195
Oriental: 554
White: 985,276
Other: 1,223

Total Public School Enrollment:
Elem (K-8): 178,899
Sec (9-12): 71,356
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 16,779
Post-Sec: 2,065
Adult: 10,996
Total: 29,840

Voc. Ed. Enrollment by Race:*
Negro: NA
Spanish Surnamed Americans: NA
American Indians: NA
Oriental: NA
Other: NA

Voc. Ed. Enrollment by Location:*
SMSA: 8,342
Central City: 6,235
Non-SMSA: 21,530

*Figures include NA students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 658
Distrib. Ed: 696
Health: 529
Cons. & Hmkg.: 2,793
Occup. H.E.: 219
Office: 12,447
Technical: 462
Trade & Ind: 11,774

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: 623
Industrial Arts : 13,950

Career Education Enrollment: 3,276
Total # Schools Offering Voc. Ed: 134
Total # Voc. Ed. Programs : 894
Total # Voc. Ed. Teachers : 1,660

Total Disadv. Voc. Ed. Enrollment: 625
Total Hndcpd. Voc. Ed. Enrollment: 291
Total Coop Enrollment: 964
Total Work-Study Enroll: 218

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 2,801,801
Total Fed. Expenditures: $ 2,582,996
Total State/Local Expenditures: $ 13,213,306
Expend. by Location: SMSA: $4,752,759
Central City: $1,477,001
Non-SMSA: $ 11,043,543
Total Expenditures for Disadv: $ 765,556
Hndcpd: $ 229,404

Total Occup. Reported USDL Enrollments:
MDTA: 1,582
EOA: 822

USDL Allocations in Occup. Reported Programs
MDTA: 2,111,000
EOA: 4,989,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 765
MDTA OJT: 307
MDTA JOP: 463
MDTA Part-time: 47

Mainstream: 58
WIN: 151
New Careers: 0

PSC: 0
NYC-OS: 131
CEP: 482

Statistical Profile of Maryland 1971-72

Population:

Total State: 3,992,399
15 - 19 yrs: 356,139
20 - 24 yrs: 325,455
25 - 64 yrs: 1,782,436

SMSA: 3,307,337
Central City: 905,759
Non-SMSA: 615,062

Negro: 699,479
Am. Indian: 4,239
Oriental: 10,253
White: 3,194,888
Other: 13,540

Total Public School Enrollment:

Elem (K-8): 759,864
Sec (9-12): 188,978
Post-Sec (13-14): 48,343
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 111,701
Post-Sec: 19,522
Adult: 34,809
Total: 166,032

Voc. Ed. Enrollment by Race:*

Negro: 47,805
Spanish Surnamed Americans: 806
American Indians: 832
Oriental: 861
Other: 165,010

Voc. Ed. Enrollment by Location:*

SMSA: 114,738
Central City: 49,259
Non-SMSA: 51,294

*Figures include 49,282 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 3,519
Distrib. Ed: 4,774
Health: 3,808
Cons. & Hmkg.: 46,507
Occup. H.E.: 3,226
Office: 59,350
Technical: 9,176
Trade & Ind: 30,504

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 278
Total # Voc. Ed. Programs : 2,063
Total # Voc. Ed. Teachers : 4,929

Total Disadv. Voc. Ed. Enrollment: 32,863
Total Hndcpd. Voc. Ed. Enrollment: 7,908

Total Coop Enrollment: 5,452
Total Work-Study Enroll: 350

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 8,147,206
Total Fed. Expenditures: $ 7,062,959
Total State/Local Expenditures: $ 59,964,572
Expend. by Location: SMSA: $ NA
Central City: $ NA
Non-SMSA: $ NA
Total Expenditures for Disadv: $ 6,219,014
Hndcpd: $ 1,348,105

Total Occup. Reported USDL Enrollments:

MDTA: 3,049
EOA: 2,429

USDL Allocations in Occup. Reported Programs:

MDTA: 7,663,000
EOA: 8,729,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 1,542
MDTA OJT: 546
MDTA JOP: 770
MDTA Part-time: 191

Mainstream: 97
WIN: 288
New Careers: 1

PSC: 287
NYC-OS: 700
CEP: 1,056

Statistical Profile of Massachusetts 1971-72

Population:

Total State: 5,689,170
15 - 19 yrs: 514,556
20 - 24 yrs: 464,405
25 - 64 yrs: 2,506,201

SMSA: 4,817,915
Central City: 1,726,298
Non-SMSA: 871,255

Negro: 175,817
Am. Indian: 4,475
Oriental: 18,405
White: 5,477,624
Other: 12,849

Total Public School Enrollment:

Elem (K-8): 826,350
Sec (9-12): 356,602
Post-Sec (13-14): 4,128
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 121,684
Post-Sec: 13,019
Adult: 29,096
Total: 163,799

Voc. Ed. Enrollment by Race:*

Negro: 8,667
Spanish Surnamed Americans: 2,269
American Indians: 228
Oriental: 439
Other: 152,196

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*

SMSA: 136,763
Central City: 55,312
Non-SMSA: 27,036

Voc. Ed. Enrollment by Program:

Agriculture: 2,149
Distrib. Ed: 6,628
Health: 4,382
Cons. & Hmkg.: 16,055
Occup. H.E.: 3,088
Office: 79,962
Technical: 4,686
Trade & Ind: 43,216

Occupationally Oriented Enrollments:

Gen. Business: 73,227
Gen. Agriculture: 1,223
Industrial Arts : NA

Career Education Enrollment: 0
Total # Schools Offering Voc. Ed: 273
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 5,725

Total Disadv. Voc. Ed. Enrollment: 6,948
Total Hndcpd. Voc. Ed. Enrollment: 2,669
Total Coop Enrollment: [illegible],673
Total Work-Study Enroll: 1,718

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $10,187,209
Total Fed. Expenditures: $ 10,243,249
Total State/Local Expenditures: $118,572,158
Expend. by Location: SMSA: $111,920,295
Central City: $ 41,663,322
Non-SMSA: $16,895,112
Total Expenditures for Disadv: $2,957,052
Hndcpd: $ 1,802,002

Total Occup. Reported USDL Enrollments:

MDTA: 3,914
EOA: 4,916

USDL Allocations in Occup. Reported Programs

MDTA: 10,229,000
EOA: 20,323,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 2,560
MDTA OJT: 607
MDTA JOP: 747
MDTA Part-time: 0

Mainstream: 186
WIN: 1,336
New Careers: 59

PSC: 149
NYC-OS: 339
CEP: 2,847

Statistical Profile of Michigan 1971-72

Population:

Total State: 8,875,083
15 - 19 yrs: 872,624
20 - 24 yrs: 702,742
25 - 64 yrs: 3,839,216

SMSA: 6,806,151
Central City: 2,468,063
Non-SMSA: 2,068,932

Negro: 991,066
Am. Indian: 16,854
Oriental: 11,628
White: 7,833,474
Other: 22,061

Total Public School Enrollment:
Elem (K-8): 1,498,562
Sec (9-12): 679,836
Post-Sec (13-14): 132,059
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 182,185
Post-Sec: 63,216
Adult: 97,584
Total: 342,985

Voc. Ed. Enrollment by Race:*
Negro: 52,795
Spanish Surnamed Americans: 2,908
American Indians: 782
Oriental: 1,864
Other: 284,636

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 273,106
Central City: 64,094
Non-SMSA: 69,879

Voc. Ed. Enrollment by Program:
Agriculture: 13,897
Distrib. Ed: 38,872
Health: 14,598
Cons. & Hmkg.: 74,871
Occup. H.E.: 13,529
Office: 64,834
Technical: 17,484
Trade & Ind: 96,232

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 3,258 (partial)
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 9,771

Total Disadv. Voc. Ed. Enrollment: 19,426
Total Hndcpd. Voc. Ed. Enrollment: 1,234

Total Coop Enrollment: 28,833
Total Work-Study Enroll: 1,391

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $18,577,007
Total Fed. Expenditures: $ 12,704,063
Total State/Local Expenditures: $ 41,352,494
Expend. by Location: SMSA: $33,273,401
Central City: $ 9,282,655
Non-SMSA: $20,783,156
Total Expenditures for Disadv: $1,893,034
Hndcpd: $ 415,356

Total Occup. Reported USDL Enrollments:
MDTA: 7,182
EOA: 3,937

USDL Allocations in Occup. Reported Programs:
MDTA: 19,459,000
EOA: 22,732,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 5,457
MDTA OJT: 665
MDTA JOP: 865
MDTA Part-time: 195

Mainstream: 834
WIN: 1,256
New Careers: 1

PSC: 181
NYC-OS: 930
CEP: 735

Statistical Profile of Minnesota 1971-72

Population:
Total State: 3,804,971
15 - 19 yrs: 373,405
20 - 24 yrs: 292,037
25 - 64 yrs: 1,581,183

SMSA: 2,165,029
Central City: 928,411
Non-SMSA: 1,639,942

Negro: 34,868
Am. Indian: 23,128
Oriental: 5,025
White: 3,736,038
Other: 5,912

Total Public School Enrollment:
Elem (K-8): 609,730
Sec (9-12): 285,851
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 110,086
Post-Sec: 21,130
Adult: 103,118
Total: 234,334

Voc. Ed. Enrollment by Race:*
Negro: NA
Spanish Surnamed Americans: NA
American Indians: NA
Oriental: NA
Other: NA

Voc. Ed. Enrollment by Location:*
SMSA: 129,624
Central City: 68,068
Non-SMSA: 171,827

*Figures include 67,717 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 34,180
Distrib. Ed: 15,813
Health: 4,468
Cons. & Hmkg.: 73,152
Occup. H.E.: 12,771
Office: 30,691
Technical: 8,050
Trade & Ind: 55,209

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 4,010
Total # Schools Offering Voc. Ed: 390
Total # Voc. Ed. Programs : 2,748
Total # Voc. Ed. Teachers : 5,960

Total Disadv. Voc. Ed. Enrollment: 9,801
Total Hndcpd. Voc. Ed. Enrollment: 5,271
Total Coop Enrollment: 10,082
Total Work-Study Enroll: 623

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 8,788,745
Total Fed. Expenditures: $ 8,957,851
Total State/Local Expenditures: $ 47,428,104
Expend. by Location: SMSA: $ 33,117,491
Central City: $ 11,307,736
Non-SMSA: $ 23,128,247
Total Expenditures for Disadv: $ 3,223,562
Hndcpd: $ 1,254,602

Total Occup. Reported USDL Enrollments:
MDTA: 4,463
EOA: 2,513

USDL Allocations in Occup. Reported Programs:
MDTA: 6,920,000
EOA: 11,155,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,382
MDTA OJT: 358
MDTA JOP: 1,723
MDTA Part-time: 0
Mainstream: 191
WIN: 998
New Careers: 18
PSC: 39
NYC-OS: 426
CEP: 841

Statistical Profile of Mississippi 1971-72

Population:

Total State:	2,216,912	SMSA:	393,488	Negro:	815,770
15 - 19 yrs:	232,971	Central City:	243,245	Am. Indian:	4,113
20 - 24 yrs:	173,332	Non-SMSA:	1,823,424	Oriental:	1,902
25 - 64 yrs:	888,484			White:	1,393,283
				Other:	1,844

Total Public School Enrollment:		Total Voc. Ed. Enrollment:	
Elem (K-8):	382,864	Sec:	57,819
Sec (9-12):	146,464	Post-Sec:	8,812
Post-Sec (13-14):	60,869	Adult:	42,930
Adult :	NA	Total:	109,561

Voc. Ed. Enrollment by Race:*		Voc. Ed. Enrollment by Location:*	
Negro:	47,780	SMSA:	14,181
Spanish Surnamed Americans:	127	Central City:	3,965
American Indians:	62	Non-SMSA:	101,104
Oriental:	46		
Other:	67,270		

*Figures include 5,724 students under grade 9.

Voc. Ed. Enrollment by Program:		Occupationally Oriented Enrollments:	
Agriculture:	21,506	Gen. Business:	57,011
Distrib. Ed:	6,471	Gen. Agriculture:	250
Health:	2,573	Industrial Arts :	12,142
Cons. & Hmkg.:	31,061		
Occup. H.E.:	1,740	Career Education Enrollment:	9,253
Office:	7,851	Total # Schools Offering Voc. Ed:	405
Technical:	8,175	Total # Voc. Ed. Programs :	3,878
Trade & Ind:	24,886	Total # Voc. Ed. Teachers :	2,283

Total Disadv. Voc. Ed. Enrollment:	8,221	Total Coop Enrollment:	2,474
Total Hndcpd. Voc. Ed. Enrollment:	2,584	Total Work-Study Enroll:	333

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $7,159,748 Total Fed. Expenditures: $ 7,431,764

Total State/Local Expenditures: $ 18,948,608

Expend. by Location: SMSA: $ 4,326,061 Central City: $ 1,853,314

Non-SMSA: $ 22,054,311

Total Expenditures for Disadv: $2,174,002 Hndcpd: $ 645,337

Total Occup. Reported USDL Enrollments:		USDL Allocations in Occup. Reported Programs:	
MDTA:	3,888	MDTA:	4,726,000
EOA:	2,593	EOA:	7,685,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.:	1,620	Mainstream:	227	PSC:	128
MDTA OJT:	736	WIN:	183	NYC-OS:	1,150
MDTA JOP:	1,473	New Careers:	0	CEP:	905
MDTA Part-time:	59				

Statistical Profile of Missouri 1971-72

Population:

Total State: 4,676,501
15 - 19 yrs: 429,653
20 - 24 yrs: 354,697
25 - 64 yrs: 2,041,068

SMSA: 2,997,071
Central City: 1,375,686
Non-SMSA: 1,679,430

Negro: 480,172
Am. Indian: 5,405
Oriental: 5,197
White: 2,177,495
Other: 8,232

Total Public School Enrollment:
Elem (K-8): 779,334
Sec (9-12): 308,532
Post-Sec (13-14): 39,924
Adult : 99,807

Total Voc. Ed. Enrollment:
Sec: 112,167
Post-Sec: 14,282
Adult: 36,176
Total: 162,625

Voc. Ed. Enrollment by Race:*
Negro: 29,039
Spanish Surnamed Americans: 998
American Indians: 73
Oriental: 452
Other: 133,063

Voc. Ed. Enrollment by Location:*
SMSA: 82,434
Central City: 39,072
Non-SMSA: 80,191

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 17,699
Distrib. Ed: 13,482
Health: 7,394
Cons. & Hmkg.: 66,154
Occup. H.E.: 2,549
Office: 21,069
Technical: 4,333
Trade & Ind: 29,945

Occupationally Oriented Enrollments:
Gen. Business: 74,582
Gen. Agriculture: 2,798
Industrial Arts : 111,077

Career Education Enrollment: 13,664 (estimated)
Total # Schools Offering Voc. Ed: 368
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 4,585

Total Disadv. Voc. Ed. Enrollment: 12,483
Total Hndcpd. Voc. Ed. Enrollment: 3,695

Total Coop Enrollment: 6,642
Total Work-Study Enroll: 685

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 10,782,120
Total Fed. Expenditures: $ 10,025,232
Total State/Local Expenditures: $ 35,183,342
Expend. by Location: SMSA: $ 25,262,992
Central City: $ 11,198,756
Non-SMSA: $ 19,945,582
Total Expenditures for Disadv: $ 2,378,053
Hndcpd: $ 334,013

Total Occup. Reported USDL Enrollments:
MDTA: 5,947
EOA: 3,136

USDL Allocations in Occup. Reported Programs:
MDTA: 7,849,000
EOA: 11,103,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 3,582
MDTA OJT: 504
MDTA JOP: 1,858
MDTA Part-time: 3

Mainstream: 245
WIN: 219
New Careers: 12

PSC: 72
NYC-OS: 569
CEP: 2,019

Statistical Profile of Montana 1971-72

Population:

Total State: 694,409

15 - 19 yrs: 70,346

20 - 24 yrs: 51,522

25 - 64 yrs: 295,875

SMSA: 169,171

Central City: 121,672

Non-SMSA: 525,238

Negro: 1,995

Am. Indian: 27,130

Oriental: 863

White: 663,043

Other: 1,378

Total Public School Enrollment:

Elem (K-8): 119,204

Sec (9-12): 54,213

Post-Sec (13-14): NA

Adult : NA

Total Voc. Ed. Enrollment:

Sec: 19,416

Post-Sec: 4,125

Adult: 8,726

Total: 32,267

Voc. Ed. Enrollment by Race:*

Negro: 116

Spanish Surnamed Americans: 151

American Indians: 2,598

Oriental: 7

Other: 33,053

Voc. Ed. Enrollment by Location:*

SMSA: 7,422

Central City: 6,558

Non-SMSA: 26,762

*Figures include 1,917 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 3,689

Distrib. Ed: 1,667

Health: 595

Cons. & Hmkg.: 6,926

Occup. H.E.: 168

Office: 7,870

Technical: 1,302

Trade & Ind: 10,050

Occupationally Oriented Enrollments:

Gen. Business: NA

Gen. Agriculture: NA

Industrial Arts : NA

Career Education Enrollment: 4,464

Total # Schools Offering Voc. Ed: 135

Total # Voc. Ed. Programs : 278

Total # Voc. Ed. Teachers : 1,082

Total Disadv. Voc. Ed. Enrollment: 4,754

Total Hndcpd. Voc. Ed. Enrollment: 974

Total Coop Enrollment: 1,088

Total Work-Study Enroll: 87

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 2,140,551

Total Fed. Expenditures: $ 2,181,716

Total State/Local Expenditures: $ 6,387,334

Expend. by Location: SMSA: $ 1,740,699

Central City: $ 1,511,543

Non-SMSA: $ 6,828,351

Total Expenditures for Disadv: $ 441,922

Hndcpd: $ 215,215

Total Occup. Reported USDL Enrollments:

MDTA: 815

EOA: 774

USDL Allocations in Occup. Reported Programs:

MDTA: 1,672,000

EOA: 3,433,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 559

MDTA OJT: 135

MDTA JOP: 118

MDTA Part-time: 3

Mainstream: 171

WIN: 101

New Careers: 1

PSC: 156

NYC-OS: 100

CEP: 245

Statistical Profile of Nebraska 1971-72

Population:

Total State: 1,483,493
15 - 19 yrs: 143,175
20 - 24 yrs: 114,687
25 - 64 yrs: 621,686

SMSA: 634,260
Central City: 496,846
Non-SMSA: 849,233

Negro: 39,911
Am. Indian: 6,624
Oriental: 1,865
White: 1,432,867
Other: 2,226

Total Public School Enrollment:

Elem (K-8): 204,608
Sec (9-12): 126,543
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 36,052
Post-Sec: 7,180
Adult: 25,564
Total: 68,796

Voc. Ed. Enrollment by Race:*

Negro: 2,138
Spanish Surnamed Americans: 622
American Indians: 212
Oriental: 56
Other: 70,829

Voc. Ed. Enrollment by Location:*

SMSA: 22,143
Central City: 18,114
Non-SMSA: 51,714

*Figures include 5,061 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 8,223
Distrib. Ed: 4,833
Health: 4,842
Cons. & Hmkg.: 21,825
Occup. H.E.: 418
Office: 8,678
Technical: 990
Trade & Ind: 18,355

Occupationally Oriented Enrollments:

Gen. Business: 3,807
Gen. Agriculture: 0
Industrial Arts : 25,000 (estimated)

Career Education Enrollment: 6,593
Total # Schools Offering Voc. Ed: 205
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 2,046

Total Disadv. Voc. Ed. Enrollment: 8,075
Total Hndcpd. Voc. Ed. Enrollment: 2,092
Total Coop Enrollment: 4,157
Total Work-Study Enroll: 265

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $3,608,032
Total Fed. Expenditures: $ 3,691,407
Total State/Local Expenditures: $ 8,821,351
Expend. by Location: SMSA: $ 4,189,125
Central City: $ 3,591,924
Non-SMSA: $ 8,323,633
Total Expenditures for Disadv: $ 1,278,967
Hndcpd: $ 547,176

Total Occup. Reported USDL Enrollments:

MDTA: 1,712
EOA: 657

USDL Allocations in Occup. Reported Programs:

MDTA: 5,063,000
EOA: 3,829,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 1,164
MDTA OJT: 105
MDTA JOP: 443
MDTA Part-time: 0

Mainstream: 65
WIN: 58
New Careers: 0

PSC: 61
NYC-OS: 48
CEP: 425

Statistical Profile of Nevada 1971-72

Population:

Total State: 488,738
15 - 19 yrs: 40,185
20 - 24 yrs: 39,075
25 - 64 yrs: 234,454

SMSA: 394,356
Central City: 198,650
Non-SMSA: 94,382

Negro: 27,762
Am. Indian: 7,933
Oriental: 2,042
White: 448,177
Other: 2,824

Total Public School Enrollment:
Elem (K-8): 92,563
Sec (9-12): 35,661
Post-Sec (13-14): NA
Adult : 20,729

Total Voc. Ed. Enrollment:
Sec: 14,469
Post-Sec: 2,050
Adult: 4,098
Total: 20,617

Voc. Ed. Enrollment by Race:*
Negro: 1,389
Spanish Surnamed Americans: 596
American Indians: 724
Oriental: 105
Other: 19,121

Voc. Ed. Enrollment by Location:*
SMSA: 13,478
Central City: 10,897
Non-SMSA: 8,457

*Figures include 1,318 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 1,402
Distrib. Ed: 958
Health: 1,840
Cons. & Hmkg.: 3,742
Occup. H.E.: 543
Office: 7,150
Technical: 3,091
Trade & Ind: 7,176

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 59
Total # Voc. Ed. Programs : 538
Total # Voc. Ed. Teachers : 727

Total Disadv. Voc. Ed. Enrollment: 2,612
Total Hndcpd. Voc. Ed. Enrollment: 94

Total Coop Enrollment: 1,458
Total Work-Study Enroll: 75

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 1,107,159
Total Fed. Expenditures: $ 1,205,099
Total State/Local Expenditures: $ 3,097,344
Expend. by Location: SMSA: $ 2,581,456
Central City: $2,581,456
Non-SMSA: $ 1,720,987
Total Expenditures for Disadv: $ 809,014
Hndcpd: $ 400,139

Total Occup. Reported USDL Enrollments:
MDTA: 715
EOA: 519

USDL Allocations in Occup. Reported Programs:
MDTA: 1,360,000
EOA: 2,298,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 309
MDTA OJT: 146
MDTA JOP: 260
MDTA Part-time: 0

Mainstream: 29
WIN: 16
New Careers: 0

PSC: 0
NYC-OS: 179
CEP: 295

Statistical Profile of New Hampshire 1971-72

Population:
Total State: 737,681
15 - 19 yrs: 67,264
20 - 24 yrs: 58,522
25 - 64 yrs: 319,207

SMSA: 201,693
Central City: 143,574
Non-SMSA: 535,988

Negro: 2,505
Am. Indian: 361
Oriental: 780
White: 733,106
Other: 929

Total Public School Enrollment:
Elem (K-8): 120,573
Sec (9-12): 48,937
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 17,921
Post-Sec: 2,011
Adult: 5,378
Total: 25,310

Voc. Ed. Enrollment by Race:*
Negro: 31
Spanish Surnamed Americans: 34
American Indians: 0
Oriental: 16
Other: 25,093

Voc. Ed. Enrollment by Location:*
SMSA: 3,014
Central City: 2,167
Non-SMSA: 32,160

*Figures include 9,864 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 1,316
Distrib. Ed: 418
Health: 1,061
Cons. & Hmkg.: 8,630
Occup. H.E.: 336
Office: 7,046
Technical: 711
Trade & Ind: 4,963

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : 8,549

Career Education Enrollment: 77,195
Total # Schools Offering Voc. Ed: 54
Total # Voc. Ed. Programs : 330
Total # Voc. Ed. Teachers : 1,024

Total Disadv. Voc. Ed. Enrollment: 1,943
Total Hndcpd. Voc. Ed. Enrollment: 357

Total Coop Enrollment: 500
Total Work-Study Enroll: 100

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 1,663,530
Total Fed. Expenditures: $ 1,686,373
Total State/Local Expenditures: $ 5,806,300
Expend. by Location: SMSA: $ 514,295
Central City: $ 465,848
Non-SMSA: $6,978,378
Total Expenditures for Disadv: $ 906,864
Hndcpd: $ 345,663

Total Occup. Reported USDL Enrollments:
MDTA: 753
EOA: 375

USDL Allocations in Occup. Reported Programs
MDTA: 1,258,000
EOA: 1,603,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 527
MDTA OJT: 33
MDTA JOP: 193
MDTA Part-time: 0

Mainstream: 33
WIN: 36
New Careers: 0

PSC: 0
NYC-OS: 53
CEP: 253

Statistical Profile of New Jersey 1971-72

Population:

Total State: 7,168,164
15 - 19 yrs: 611,831
20 - 24 yrs: 509,198
25 - 64 yrs: 3,357,863

SMSA: 5,511,330
Central City: 1,166,781
Non-SMSA: 1,656,834

Negro: 770,292
Am. Indian: 4,604
Oriental: 14,914
White: 6,349,908
Other: 28,344

Total Public School Enrollment:

Elem (K-8): 924,348
Sec (9-12): 431,554
Post-Sec (13-14): 59,824
Adult : 139,000

Total Voc. Ed. Enrollment:

Sec: 200,439
Post-Sec: 16,974
Adult: 92,773
Total: 310,186

Voc. Ed. Enrollment by Race:*

Negro: 68,375
Spanish Surnamed Americans: 16,166
American Indians: 185
Oriental: 371
Other: 225,089

Voc. Ed. Enrollment by Location:*

SMSA: 250,474
Central City: 86,773
Non-SMSA: 59,712

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 2,352
Distrib. Ed: 10,883
Health: 7,889
Cons. & Hmkg.: 94,498
Occup. H.E.: 6,667
Office: 113,753
Technical: 11,884
Trade & Ind: 52,147

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : 123,773

Career Education Enrollment: 20,268
Total # Schools Offering Voc. Ed: 278
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 8,497

Total Disadv. Voc. Ed. Enrollment: 23,035
Total Hndcpd. Voc. Ed. Enrollment: 4,517

Total Coop Enrollment: 7,402
Total Work-Study Enroll: 2,000

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 13,246,732
Total Fed. Expenditures: $ 31,574,480
Total State/Local Expenditures: $ 28,967,550
Expend. by Location: SMSA: $ 25,880,346
Central City: $2,647,261
Non-SMSA: $ 16,661,684
Total Expenditures for Disadv: $ 5,215,873
Hndcpd: $2,561,905

Total Occup. Reported USDL Enrollments:

MDTA: 7,266
EOA: 3,863

USDL Allocations in Occup. Reported Programs:

MDTA: 18,632,000
EOA: 17,085,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 4,725
MDTA OJT: 382
MDTA JOP: 2,088
MDTA Part-time: 31

Mainstream: 268
WIN: 404
New Careers: 15

PSC: 199
NYC-OS: 633
CEP: 2,344

Statistical Profile of New Mexico 1971-72

Population:
Total State: 1,016,000
15 - 19 yrs: 105,164
20 - 24 yrs: 82,695
25 - 64 yrs: 418,835

SMSA: 315,774
Central City: 243,751
Non-SMSA: 700,226

Negro: 19,555
Am. Indian: 72,788
Oriental: 1,503
White: 915,815
Other: 6,339

Total Public School Enrollment:
Elem (K-8): 202,208
Sec (9-12): 86,250
Post-Sec (13-14): 6,951
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 40,038
Post-Sec: 5,099
Adult: 7,201
Total: 52,338

Voc. Ed. Enrollment by Race:*
Negro: 769
Spanish Surnamed Americans: 28,382
American Indians: 5,236
Oriental: 150
Other: 22,558

Voc. Ed. Enrollment by Location:*
SMSA: 19,401
Central City: 19,401
Non-SMSA: 38,155

*Figures include 4,680 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 4,149
Distrib. Ed: 1,843
Health: 1,538
Cons. & Hmkg.: 17,026
Occup. H.E.: 1,248
Office: 15,920
Technical: 696
Trade & Ind: 9,918

Occupationally Oriented Enrollments:
Gen. Business: 45,217
Gen. Agriculture: 0
Industrial Arts : 24,067

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : 707
Total # Voc. Ed. Teachers : 973

Total Disadv. Voc. Ed. Enrollment: 24,414
Total Hndcpd. Voc. Ed. Enrollment: 1,279

Total Coop Enrollment: 3,317
Total Work-Study Enroll: 221

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $3,219,316
Total Fed. Expenditures: $ NA
Total State/Local Expenditures: $6,937,930
Expend. by Location: SMSA: $2,212,018
Central City: $ 2,212,018
Non-SMSA: $7,979,814
Total Expenditures for Disadv: $2,614,844
Hndcpd: $ 595,535

Total Occup. Reported USDL Enrollments:
MDTA: 1,578
EOA: 1,581

USDL Allocations in Occup. Reported Programs
MDTA: 2,840,000
EOA: 7,258,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.:	892	Mainstream:	137	PSC:	64
MDTA OJT:	187	WIN:	116	NYC-OS:	406
MDTA JOP:	477	New Careers:	21	CEP:	837
MDTA Part-time:	27				

Statistical Profile of New York 1971-72

Population:

Total State: 18,236,967
15 - 19 yrs: 1,563,179
20 - 24 yrs: 1,382,376
25 - 64 yrs: 8,453,238

SMSA: 15,771,192
Central City: 9,311,018
Non-SMSA: 2,465,775

Negro: 2,168,949
Am. Indian: 28,355
Oriental: 101,729
White: 15,834,090
Other: 103,844

Total Public School Enrollment:

Elem (K-8): NA
Sec (9-12): NA
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 483,285
Post-Sec: 62,883
Adult: 208,321
Total: 754,489

Voc. Ed. Enrollment by Race:*

Negro: 135,804
Spanish Surnamed Americans: 74,305
American Indians: 11,953
Oriental: 9,563
Other: 688,296

Voc. Ed. Enrollment by Location:*

SMSA: 770,200
Central City: 416,653
Non-SMSA: 149,721

*Figures include 165,432 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 14,893
Distrib. Ed: 28,527
Health: 32,851
Cons. & Hmkg.: 211,354
Occup. H.E.: 6,659
Office: 273,849
Technical: 31,526
Trade & Ind: 154,830

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 18,797

Total Disadv. Voc. Ed. Enrollment: 235,844
Total Hndcpd. Voc. Ed. Enrollment: 7,901

Total Coop Enrollment: 18,520
Total Work-Study Enroll: 1,500

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 30,506,243
Total Fed. Expenditures: $ 33,816,266
Total State/Local Expenditures: $ 294,837,106
Expend. by Location: SMSA: $ NA
Central City: $ NA
Non-SMSA: $ NA
Total Expenditures for Disadv: $ 55,889,195
Hndcpd: $ 9,868,739

Total Occup. Reported USDL Enrollments:

MDTA: 13,520
EOA: 7,216

USDL Allocations in Occup. Reported Programs:

MDTA: 37,138,000
EOA: 46,855,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 6,265
MDTA OJT: 1,098
MDTA JOP: 6,133
MDTA Part-time: 24

Mainstream: 211
WIN: 2,073
New Careers: 12

PSC: 289
NYC-OS: 2,993
CEP: 1,638

Statistical Profile of North Carolina 1971-72

Population:

Total State: 5,082,059
15 - 19 yrs: 519,514
20 - 24 yrs: 464,072
25 - 64 yrs: 2,231,690

SMSA: 1,896,423
Central City: 955,746
Non-SMSA: 3,185,636

Negro: 1,126,478
Am. Indian: 44,406
Oriental: 3,359
White: 3,901,767
Other: 6,049

Total Public School Enrollment:

Elem (K-8): 833,261
Sec (9-12): 364,536
Post-Sec (13-14): 71,776
Adult : 315,503

Total Voc. Ed. Enrollment:

Sec: 174,984
Post-Sec: 46,421
Adult: 209,221
Total: 430,626

Voc. Ed. Enrollment by Race:*

Negro: 126,299
Spanish Surnamed Americans: 398
American Indians: 4,357
Oriental: 196
Other: 356,143

*Figures include 56,767 students under grade 9.

Voc. Ed. Enrollment by Location:*

SMSA: 132,085
Central City: 14,749
Non-SMSA: 355,308

Voc. Ed. Enrollment by Program:

Agriculture: 33,502
Distrib. Ed: 18,695
Health: 28,389
Cons. & Hmkg.: 119,177
Occup. H.E.: 18,103
Office: 32,718
Technical: 11,751
Trade & Ind: 152,215

Occupationally Oriented Enrollments:

Gen. Business: 129,503 (duplicate
Gen. Agriculture: 0
Industrial Arts : 27,000

Career Education Enrollment: 3,866
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : 2,992
Total # Voc. Ed. Teachers : 13,244

Total Disadv. Voc. Ed. Enrollment: 48,211
Total Hndcpd. Voc. Ed. Enrollment: 7,431

Total Coop Enrollment: 22,917
Total Work-Study Enroll: 747

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 15,133,559
Total Fed. Expenditures: $ 15,634,072
Total State/Local Expenditures: $83,395,144
Expend. by Location: SMSA: $33,351,115
Central City: $ 20,436,059
Non-SMSA: $65,678,101
Total Expenditures for Disadv: $ 3,277,737
Hndcpd: $ 1,681,030

Total Occup. Reported USDL Enrollments:

MDTA: 6,838
EOA: 2,964

USDL Allocations in Occup. Reported Programs

MDTA: 6,864,000
EOA: 10,400,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 5,320
MDTA OJT: 380
MDTA JOP: 1,138
MDTA Part-time: 0

Mainstream: 184
WIN: 151
New Careers: 209

PSC: 115
NYC-OS: 951
CEP: 1,354

Statistical Profile of North Dakota 1971-72

Population:
Total State: 617,761
15 - 19 yrs: 64,769
20 - 24 yrs: 48,767
25 - 64 yrs: 251,965

SMSA: 73,653
Central City: 53,365
Non-SMSA: 544,108

Negro: 2,494
Am. Indian: 14,369
Oriental: 404
White: 599,485
Other: 1,009

Total Public School Enrollment:
Elem (K-8): 109,561
Sec (9-12): 50,576
Post-Sec (13-14): 17,352
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 20,067
Post-Sec: 4,307
Adult: 8,263
Total: 32,637

Voc. Ed. Enrollment by Race:*
Negro: 71
Spanish Surnamed Americans: 49
American Indians: 766
Oriental: 32
Other: 31,717

Voc. Ed. Enrollment by Location:*
SMSA: 3,612
Central City: 2,908
Non-SMSA: 29,025

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 5,632
Distrib. Ed: 2,173
Health: 848
Cons. & Hmkg.: 11,801
Occup. H.E.: 587
Office: 5,215
Technical: 477
Trade & Ind: 5,098

Occupationally Oriented Enrollments:
Gen. Business: 3,264
Gen. Agriculture: NA
Industrial Arts : 10,697

Career Education Enrollment: 15
Total # Schools Offering Voc. Ed: 131
Total # Voc. Ed. Programs : 502
Total # Voc. Ed. Teachers : 759

Total Disadv. Voc. Ed. Enrollment: 8,030
Total Hndcpd. Voc. Ed. Enrollment: 884
Total Coop Enrollment: 2,652
Total Work-Study Enroll: 85

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 2,076,888
Total Fed. Expenditures: $ 2,127,346
Total State/Local Expenditures: $3,931,987
Expend. by Location: SMSA: $593,366
Central City: $ 502,447
Non-SMSA: $5,465,967
Total Expenditures for Disadv: $784,720
Hndcpd: $ 220,498

Total Occup. Reported USDL Enrollments:
MDTA: 782
EOA: 312

USDL Allocations in Occup. Reported Programs:
MDTA: 2,224,000
EOA: 1,900,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 567
MDTA OJT: 31
MDTA JOP: 184
MDTA Part-time: 0

Mainstream: 78
WIN: 67
New Careers: 0

PSC: 0
NYC-OS: 166
CEP: 1

Statistical Profile of Ohio 1971-72

Population:
Total State: 10,652,017
15 - 19 yrs: 1,012,221
20 - 24 yrs: 833,369
25 - 64 yrs: 4,701,044

SMSA: 8,272,512
Central City: 3,429,005
Non-SMSA: 2,379,505

Negro: 970,477
Am. Indian: 6,654
Oriental: 10,860
White: 9,646,997
Other: 17,029

Total Public School Enrollment:
Elem (K-8): 1,691,687
Sec (9-12): 740,953
Post-Sec (13-14): 37,895
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 195,833
Post-Sec: 20,186
Adult: 195,988
Total: 412,007

Voc. Ed. Enrollment by Race:*
Negro: 122,530
Spanish Surnamed Americans: 4,046
American Indians: 675
Oriental: 938
Other: 318,528

Voc. Ed. Enrollment by Location:*
SMSA: 321,662
Central City: 143,805
Non-SMSA: 125,495

*Figures include 35,150 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 34,254
Distrib. Ed: 44,024
Health: 8,771
Cons. & Hmkg.: 136,454
Occup. H.E.: 7,456
Office: 52,798
Technical: 6,812
Trade & Ind: 93,537

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 8,407

Total Disadv. Voc. Ed. Enrollment: 70,733
Total Hndcpd. Voc. Ed. Enrollment: 19,238

Total Coop Enrollment: 41,300
Total Work-Study Enroll: 948

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 23,622,364
Total Fed. Expenditures: $ 22,497,469
Total State/Local Expenditures: $116,594,863
Expend. by Location: SMSA: $103,512,513
Central City: $ 52,187,443
Non-SMSA: $ 35,579,819
Total Expenditures for Disadv: $22,052,457
Hndcpd: $ 1,944,266

Total Occup. Reported USDL Enrollments:
MDTA: 9,794
EOA: 3,459

USDL Allocations in Occup. Reported Programs
MDTA: 18,269,000
EOA: 22,247,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 6,369
MDTA OJT: 1,246
MDTA JOP: 2,178
MDTA Part-time: 1

Mainstream: 259
WIN: 931
New Careers: 1

PSC: 97
NYC-OS: 1,210
CEP: 961

Statistical Profile of Oklahoma 1971-72

Population:
Total State: 2,559,229
15 - 19 yrs: 241,535
20 - 24 yrs: 207,450
25 - 64 yrs: 1,121,977

SMSA: 1,281,485
Central City: 761,540
Non-SMSA: 1,277,744

Negro: 171,892
Am. Indian: 98,468
Oriental: 2,407
White: 2,280,362
Other: 6,100

Total Public School Enrollment:
Elem (K-8): 454,090
Sec (9-12): 190,751
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 61,418
Post-Sec: 5,832
Adult: 40,145
Total: 107,395

Voc. Ed. Enrollment by Race:*
Negro: 8,088
Spanish Surnamed Americans: 557
American Indians: 6,161
Oriental: 76
Other: 93,136

*Figures include 623 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 41,313
Central City: 23,921
Non-SMSA: 66,705

Voc. Ed. Enrollment by Program:
Agriculture: 23,768
Distrib. Ed: 5,921
Health: 4,628
Cons. & Hmkg.: 30,403
Occup. H.E.: 2,361
Office: 11,087
Technical: 4,943
Trade & Ind: 32,758

Occupationally Oriented Enrollments:
Gen. Business: 33,000 (estimated)
Gen. Agriculture: 0
Industrial Arts : 25,031

Career Education Enrollment: 6,123
Total # Schools Offering Voc. Ed: 463
Total # Voc. Ed. Programs : 2,806
Total # Voc. Ed. Teachers : 2,490

Total Disadv. Voc. Ed. Enrollment: 27,451
Total Hndcpd. Voc. Ed. Enrollment: 8,580

Total Coop Enrollment: 9,151
Total Work-Study Enroll: 476

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 6,973,649
Total Fed. Expenditures: $ 7,787,704
Total State/Local Expenditures: $ 20,764,098
Expend. by Location: SMSA: $ 6,365,807
Central City: $ 3,893,829
Non-SMSA: $ 22,185,995
Total Expenditures for Disadv: $ 8,461,997
Hndcpd: $ 758,869

Total Occup. Reported USDL Enrollments:
MDTA: 4,525
EOA: 2,223

USDL Allocations in Occup. Reported Programs:
MDTA: 4,829,0[illegible]0
EOA: 7,348,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 3,200
MDTA OJT: 78
MDTA JOP: 1,100
MDTA Part-time: 147

Mainstream: 413
WIN: 182
New Careers: 0

PSC: 77
NYC-OS: 869
CEP: 682

Statistical Profile of Oregon 1971-72

Population:
Total State: 2,091,385
15 - 19 yrs: 203,362
20 - 24 yrs: 162,638
25 - 64 yrs: 928,897

SMSA: 1,280,691
Central City: 527,261
Non-SMSA: 810,694

Negro: 26,308
Am. Indian: 13,510
Oriental: 13,290
White: 2,032,079
Other: 6,198

Total Public School Enrollment:
Elem (K-8): 338,361
Sec (9-12): 160,325
Post-Sec (13-14): 61,978
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 64,161
Post-Sec: 22,444
Adult: 37,331
Total: 123,936

Voc. Ed. Enrollment by Race:*
Negro: 2,120
Spanish Surnamed Americans: 911
American Indians: 1,482
Oriental: 876
Other: 129,285

Voc. Ed. Enrollment by Location:*
SMSA: 85,082
Central City: 35,455
Non-SMSA: 49,592

*Figures include 10,738 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 5,048
Distrib. Ed: 5,775
Health: 4,541
Cons. & Hmkg.: 40,001
Occup. H.E.: 2,624
Office: 26,056
Technical: 3,660
Trade & Ind: 28,492

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 5,928
Total # Schools Offering Voc. Ed: 183
Total # Voc. Ed. Programs : 1,544
Total # Voc. Ed. Teachers : 3,917

Total Disadv. Voc. Ed. Enrollment: 21,196
Total Hndcpd. Voc. Ed. Enrollment: 1,917

Total Coop Enrollment: 5,679
Total Work-Study Enroll: 325

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 5,083,191
Total Fed. Expenditures: $ 5,209,528
Total State/Local Expenditures: $ 22,302,702
Expend. by Location: SMSA: $ 13,350,990
Central City: $ 3,738,280
Non-SMSA: $ 13,512,307
Total Expenditures for Disadv: $ 1,[illegible]88
Hndcpd: $ 627,735

Total Occup. Reported USDL Enrollments:
MDTA: 2,270
EOA: 1,800

USDL Allocations in Occup. Reported Programs:
MDTA: 4,225,000
EOA: 7,994,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,496
MDTA OJT: 13
MDTA JOP: 637
MDTA Part-time: 124

Mainstream: 100
WIN: 974
New Careers: 0

PSC: 198
NYC-OS: 316
CEP: 212

Statistical Profile of Pennsylvania 1971-72

Population:
Total State: 11,793,909
15 - 19 yrs: 1,075,430
20 - 24 yrs: 852,425
25 - 64 yrs: 5,416,432

SMSA: 9,365,552
Central City: 3,372,377
Non-SMSA: 2,428,357

Negro: 1,016,514
Am. Indian: 5,533
Oriental: 12,514
White: 10,737,732
Other: 21,616

Total Public School Enrollment:
Elem (K-8): 1,621,816
Sec (9-12): 748,452
Post-Sec (13-14): 57,415
Adult : 191,541

Total Voc. Ed. Enrollment:
Sec: 189,073
Post-Sec: 29,844
Adult: 108,541
Total: 327,458

Voc. Ed. Enrollment by Race:*
Negro: 34,979
Spanish Surnamed Americans: 3,376
American Indians: 734
Oriental: 285
Other: 288,084

Voc. Ed. Enrollment by Location:*
SMSA: 180,777
Central City: 95,122
Non-SMSA: 146,681

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 14,052
Distrib. Ed: 12,055
Health: 12,865
Cons. & Hmkg.: 55,454
Occup. H.E.: 7,867
Office: 77,668
Technical: 19,773
Trade & Ind: 128,776

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : 23,057 (estimated)

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 746
Total # Voc. Ed. Programs : 6,317
Total # Voc. Ed. Teachers : 11,728

Total Disadv. Voc. Ed. Enrollment: 23,712
Total Hndcpd. Voc. Ed. Enrollment: 6,631

Total Coop Enrollment: 10,295
Total Work-Study Enroll: 1,232

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $25,457,657
Total Fed. Expenditures: $ 27,661,281
Total State/Local Expenditures: $144,394,723
Expend. by Location: SMSA: $128,913,039
Central City: $65,554,960
Non-SMSA: $43,317,965
Total Expenditures for Disadv: $15,033,532
Hndcpd: $ 3,960,570

Total Occup. Reported USDL Enrollments:
MDTA: 9,948
EOA: 6,513

USDL Allocations in Occup. Reported Programs:
MDTA: 20,003,000
EOA: 24,619,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 6,830
MDTA OJT: 828
MDTA JOP: 2,087
MDTA Part-time: 203

Mainstream: 280
WIN: 1,605
New Careers: 114

PSC: 260
NYC-OS: 1,444
CEP: 2,910

Statistical Profile of Rhode Island 1971-72

Population:

Total State:	946,725	SMSA:	801,745	Negro:	25,338
15 - 19 yrs:	85,680	Central City:	339,891	Am. Indian:	1,390
20 - 24 yrs:	87,963	Non-SMSA:	144,980	Oriental:	1,722
25 - 64 yrs:	418,952			White:	914,757
				Other:	3,518

Total Public School Enrollment:		Total Voc. Ed. Enrollment:	
Elem (K-8):	124,163	Sec:	13,250
Sec (9-12):	52,273	Post-Sec:	1,058
Post-Sec (13-14):	NA	Adult:	5,684
Adult :	NA	Total:	19,992

Voc. Ed. Enrollment by Race:*		Voc. Ed. Enrollment by Location:*	
Negro:	732	SMSA:	17,974
Spanish Surnamed Americans:	237	Central City:	12,772
American Indians:	4	Non-SMSA:	2,018
Oriental:	36		
Other:	18,982		

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Program:		Occupationally Oriented Enrollments:	
Agriculture:	1,231	Gen. Business:	NA
Distrib. Ed:	888	Gen. Agriculture:	NA
Health:	999	Industrial Arts :	NA
Cons. & Hmkg.:	9,099		
Occup. H.E.:	42	Career Education Enrollment:	0
Office:	810	Total # Schools Offering Voc. Ed:	28
Technical:	848	Total # Voc. Ed. Programs :	319
Trade & Ind:	5,529	Total # Voc. Ed. Teachers :	548

Total Disadv. Voc. Ed. Enrollment:	2,855	Total Coop Enrollment:	1,293
Total Hndcpd. Voc. Ed. Enrollment:	392	Total Work-Study Enroll:	58

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 2,155,482 Total Fed. Expenditures: $1,760,944

Total State/Local Expenditures: $ 7,088,996

Expend. by Location: SMSA: $ 7,032,476 Central City: $4,362,656

Non-SMSA: $ 1,817,464

Total Expenditures for Disadv: $ 1,182,534 Hndcpd: $ 163,923

Total Occup. Reported USDL Enrollments:		USDL Allocations in Occup. Reported Programs:	
MDTA:	733	MDTA:	2,233,000
EOA:	876	EOA:	13,074,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.:	599	Mainstream:	17	PSC:	43
MDTA OJT:	27	WIN:	390	NYC-OS:	67
MDTA JOP:	107	New Careers:	0	CEP:	359
MDTA Part-time:	0				

Statistical Profile of South Carolina 1971-72

Population:

Total State: 2,590,516
15 - 19 yrs: 280,881
20 - 24 yrs: 238,202
25 - 64 yrs: 1,092,764

SMSA: 1,017,254
Central City: 241,695
Non-SMSA: 1,573,262

Negro: 789,041
Am. Indian: 2,241
Oriental: 1,347
White: 1,794,430
Other: 3,457

Total Public School Enrollment:
Elem (K-8): 456,383
Sec (9-12): 184,081
Post-Sec (13-14): 15,448
Adult : 76,507

Total Voc. Ed. Enrollment:
Sec: 75,880
Post-Sec: 7,463
Adult: 18,272
Total: 101,615

Voc. Ed. Enrollment by Race:*
Negro: 48,840
Spanish Surnamed Americans: 0
American Indians: 150
Oriental: 1,411
Other: 60,741

*Figures include 9,527 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 29,485
Central City: 14,410
Non-SMSA: 81,657

Voc. Ed. Enrollment by Program:
Agriculture: 21,087
Distrib. Ed: 4,919
Health: 1,153
Cons. & Hmkg.: 30,238
Occup. H.E.: 1,193
Office: 10,983
Technical: 270
Trade & Ind: 26,343

Occupationally Oriented Enrollments:
Gen. Business: 21,728
Gen. Agriculture: 0
Industrial Arts : 12,273

Career Education Enrollment: 2,774
Total # Schools Offering Voc. Ed: 315
Total # Voc. Ed. Programs : 8,048
Total # Voc. Ed. Teachers : 2,485

Total Disadv. Voc. Ed. Enrollment: 19,592
Total Hndcpd. Voc. Ed. Enrollment: 4,232

Total Coop Enrollment: 4,452
Total Work-Study Enroll: 483

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 8,440,680
Total Fed. Expenditures: $ 9,382,521
Total State/Local Expenditures: $ 15,375,425
Expend. by Location: SMSA: $7,452,558
Central City: $ 4,462,850
Non-SMSA: $ 17,305,388
Total Expenditures for Disadv: $2,849,089
Hndcpd: $ 713,888

Total Occup. Reported USDL Enrollments:
MDTA: 3,527
EOA: 2,526

USDL Allocations in Occup. Reported Programs:
MDTA: 5,386,000
EOA: 7,507,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 1,775
MDTA OJT: 209
MDTA JOP: 1,428
MDTA Part-time: 115

Mainstream: 171
WIN: 110
New Careers: 122

PSC: 107
NYC-OS: 778
CEP: 1,238

Statistical Profile of South Dakota 1971-72

Population:
Total State: 665,507
15 - 19 yrs: 69,989
20 - 24 yrs: 48,646
25 - 64 yrs: 268 990

SMSA: 95,209
Central City: 72,488
Non-SMSA: 570,298

Negro: 1,627
Am. Indian: 32,365
Oriental: 384
White: 630,333
Other: 798

Total Public School Enrollment:
Elem (K-8): 113,128
Sec (9-12): 51,865
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 15,454
Post-Sec: 2,022
Adult: 4,831
Total: 22,287

Voc. Ed. Enrollment by Race:*
Negro: 46
Spanish Surnamed Americans: 145
American Indians: 916
Oriental: 11
Other: 2,252

Voc. Ed. Enrollment by Location:*
SMSA: 3,433
Central City: 3,433
Non-SMSA: 22,937

*Figures include 4,083 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 4,612
Distrib. Ed: 1,465
Health: 470
Cons. & Hmkg.: 9,138
Occup. H.E.: 781
Office: 1,425
Technical: 425
Trade & Ind: 3,971

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: 0
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 129
Total # Voc. Ed. Programs : 557
Total # Voc. Ed. Teachers : 677

Total Disadv. Voc. Ed. Enrollment: 4,344
Total Hndcpd. Voc. Ed. Enrollment: 1,026
Total Coop Enrollment: 1,785
Total Work-Study Enroll: 158

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $2,097,310
Total Fed. Expenditures: $ 2,134,896
Total State/Local Expenditures: $ 3,309,822
Expend. by Location: SMSA: $445,018
Central City: $ 445,018
Non-SMSA: $4,999,700
Total Expenditures for Disadv: $1,408,973
Hndcpd: $ 259,967

Total Occup. Reported USDL Enrollments:
MDTA: 779
EOA: 678

USDL Allocations in Occup. Reported Programs
MDTA: 1,350,000
EOA: 4,245,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 355
MDTA OJT: 142
MDTA JOP: 166
MDTA Part-time: 116

Mainstream: 214
WIN: 79
New Careers: 3

PSC: 86
NYC-OS: 289
CEP: 7

Statistical Profile of Tennessee 1971-72

Population:
Total State: 3,923,687
15 - 19 yrs: 377,954
20 - 24 yrs: 321,177
25 - 64 yrs: 1,713,850

SMSA: 1,917,695
Central City: 1,353,336
Non-SMSA: 2,005,992

Negro: 621,261
Am. Indian: 2,276
Oriental: 2,770
White: 3,293,930
Other: 3,450

Total Public School Enrollment:
Elem (K-8): 653,316
Sec (9-12): 266,434
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 94,960
Post-Sec: 17,773
Adult: 38,493
Total: 151,226

Voc. Ed. Enrollment by Race:*
Negro: 42,890
Spanish Surnamed Americans: 148
American Indians: 210
Oriental: 93
Other: 109,420

*Figures include 1,535 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 62,872
Central City: 42,770
Non-SMSA: 89,889

Voc. Ed. Enrollment by Program:
Agriculture: 20,901
Distrib. Ed: 7,910
Health: 3,697
Cons. & Hmkg.: 50,289
Occup. H.E.: 2,279
Office: 19,626
Technical: 5,286
Trade & Ind: 41,025

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 432
Total # Voc. Ed. Programs : 1,888
Total # Voc. Ed. Teachers : 3,320

Total Disadv. Voc. Ed. Enrollment: 32,498
Total Hndcpd. Voc. Ed. Enrollment: 5,579

Total Coop Enrollment: 3,592
Total Work-Study Enroll: 745

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $11,030,475
Total Fed. Expenditures: $ 9,474,245
Total State/Local Expenditures: $ 30,425,742
Expend. by Location: SMSA: $16,809,676
Central City: $ 5,779,913
Non-SMSA: $23,090,311
Total Expenditures for Disadv: $3,864,142
Hndcpd: $ 1,361,195

Total Occup. Reported USDL Enrollments:
MDTA: 5,205
EOA: 2,977

USDL Allocations in Occup. Reported Programs:
MDTA: 6,511,000
EOA: 11,782,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 3,138
MDTA OJT: 528
MDTA JOP: 1,538
MDTA Part-time: 1

Mainstream: 283
WIN: 202
New Careers: 68

PSC: 67
NYC-OS: 1,006
CEP: 1,351

Statistical Profile of Texas 1971-72

Population:
Total State: 11,196,730
15 - 19 yrs: 1,092,752
20 - 24 yrs: 958,507
25 - 64 yrs: 4,824,944

SMSA: 8,234,458
Central City: 5,394,954
Non-SMSA: 2,962,272

Negro: 1,399,005
Am. Indian: 17,957
Oriental: 14,172
White: 9,717,127
Other: 48,468

Total Public School Enrollment:
Elem (K-8): 2,018,487
Sec (9-12): 803,959
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 305,222
Post-Sec: 52,508
Adult: 265,484
Total: 623,214

Voc. Ed. Enrollment by Race:*
Negro: 97,932
Spanish Surnamed Americans: 126,320
American Indians: 778
Oriental: 1,775
Other: 421,074

Voc. Ed. Enrollment by Location:*
SMSA: 364,924
Central City: 109,762
Non-SMSA: 282,955

*Figures include 24,665 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 147,978
Distrib. Ed: 40,731
Health: 16,894
Cons. & Hmkg.: 281,303
Occup. H.E.: 6,312
Office: 41,866
Technical: 8,925
Trade & Ind: 77,127

Occupationally Oriented Enrollments:
Gen. Business: 20,799
Gen. Agriculture: 411
Industrial Arts : 186,345

Career Education Enrollment: 69,841 (partial)
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 12,942

Total Disadv. Voc. Ed. Enrollment: 96,582
Total Hndcpd. Voc. Ed. Enrollment: 12,972

Total Coop Enrollment: 43,832
Total Work-Study Enroll: 991

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $29,490,438
Total Fed. Expenditures: $ 26,193,555
Total State/Local Expenditures: $ 104,047,046
Expend. by Location: SMSA: $76,006,334
Central City: $ 22,848,996
Non-SMSA: $54,234,267
Total Expenditures for Disadv: $ 12,624,828
Hndcpd: $ 3,439,207

Total Occup. Reported USDL Enrollments:
MDTA: 12,681
EOA: 8,018

USDL Allocations in Occup. Reported Programs:
MDTA: 14,035,000
EOA: 29,347,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 7,938
MDTA OJT: 476
MDTA JOP: 2,677
MDTA Part-time: 1,590

Mainstream: 534
WIN: 255
New Careers: 25

PSC: 139
NYC-OS: 3,425
CEP: 3,640

Statistical Profile of Utah 1971-72

Population:
Total State: 1,059,273
15 - 19 yrs: 116,607
20 - 24 yrs: 97,859
25 - 64 yrs: 414,697

SMSA: 821,689
Central City: 324,223
Non-SMSA: 237,584

Negro: 6,617
Am. Indian: 11,273
Oriental: 5,994
White: 1,031,926
Other: 3,463

Total Public School Enrollment:
Elem (K-8): 220,329
Sec (9-12): 94,470
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 62,545
Post-Sec: 13,059
Adult: 25,270
Total: 100,874

Voc. Ed. Enrollment by Race:*
Negro: 691
Spanish Surnamed Americans: 4,031
American Indians: 1,152
Oriental: 576
Other: 108,737

Voc. Ed. Enrollment by Location:*
SMSA: 71,071
Central City: 25,991
Non-SMSA: 44,116

*Figures include 14,313 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 5,664
Distrib. Ed: 8,578
Health: 1,842
Cons. & Hmkg.: 35,362
Occup. H.E.: 2,233
Office: 38,862
Technical: 4,617
Trade & Ind: 21,795

Occupationally Oriented Enrollments:
Gen. Business: 23,409
Gen. Agriculture: 0
Industrial Arts : 40,572

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : 2,050
Total # Voc. Ed. Teachers : 1,913

Total Disadv. Voc. Ed. Enrollment: 18,382
Total Hndcpd. Voc. Ed. Enrollment: 1,604
Total Coop Enrollment: 4,197
Total Work-Study Enroll: 109

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 3,208,101
Total Fed. Expenditures: $ 3,108,991
Total State/Local Expenditures: $ 15,346,067
Expend. by Location: SMSA: $ 13,734,995
Central City: $ 8,969,734
Non-SMSA: $ 4,716,715
Total Expenditures for Disadv: $ 1,520,870
Hndcpd: $ 368,123

Total Occup. Reported USDL Enrollments:
MDTA: 1,350
EOA: 1,238

USDL Allocations in Occup. Reported Programs:
MDTA: 3,074,000
EOA: 4,187,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 813
MDTA OJT: 179
MDTA JOP: 243
MDTA Part-time: 115
Mainstream: 58
WIN: 791
New Careers: 2
PSC: 212
NYC-OS: 172
CEP: 3

Statistical Profile of Vermont 1971-72

Population:
Total State: 444,330
15 - 19 yrs: 44,397
20 - 24 yrs: 36,009
25 - 64 yrs: 185,221

SMSA: 0
Central City: 0
Non-SMSA: 444,330

Negro: 761
Am. Indian: 229
Oriental: 307
White: 442,553
Other: 480

Total Public School Enrollment:
Elem (K-8): 73,633
Sec (9-12): 32,799
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 12,142
Post-Sec: 212
Adult: 4,549
Total: 16,903

Voc. Ed. Enrollment by Race:*
Negro: 27
Spanish Surnamed Americans: 19
American Indians: 2
Oriental: 7
Other: 16,898

Voc. Ed. Enrollment by Location:*
SMSA: 0
Central City: 0
Non-SMSA: 16,903

*Figures include 50 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 1,389
Distrib. Ed: 751
Health: 436
Cons. & Hmkg.: 5,607
Occup. H.E.: 348
Office: 2,242
Technical: 496
Trade & Ind: 5,340

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: 0
Industrial Arts : 7,452

Career Education Enrollment: 5,705
Total # Schools Offering Voc. Ed: 58
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 621

Total Disadv. Voc. Ed. Enrollment: 3,385
Total Hndcpd. Voc. Ed. Enrollment: 363

Total Coop Enrollment: 974
Total Work-Study Enroll: 126

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $1,348,869
Total Fed. Expenditures: $ 953,379
Total State/Local Expenditures: $8,402,066
Expend. by Location: SMSA: $0
Central City: $ 0
Non-SMSA: $9,355,445
Total Expenditures for Disadv: $1,100,981
Hndcpd: $ 76,394

Total Occup. Reported USDL Enrollments:
MDTA: 1,021
EOA: 505

USDL Allocations in Occup. Reported Programs
MDTA: 1,429,000
EOA: 1,573,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 594
MDTA OJT: 25
MDTA JOP: 255
MDTA Part-time: 147

Mainstream: 37
WIN: 320
New Careers: 37

PSC: 54
NYC-OS: 102
CEP: 0

Statistical Profile of Virginia 1971-72

Population:

Total State: 4,648,494
15 - 19 yrs: 440,872
20 - 24 yrs: 439,818
25 - 64 yrs: 2,078,450

SMSA: 2,846,034
Central City: 1,124,889
Non-SMSA: 1,802,460

Negro: 861,368
Am. Indian: 4,853
Oriental: 6,305
White: 3,761,514
Other: 14,454

Total Public School Enrollment:
Elem (K-8): 667,431
Sec (9-12): 291,360
Post-Sec (13-14): 36,403
Adult : 26,668

Total Voc. Ed. Enrollment:
Sec: 127,640
Post-Sec: 18,807
Adult: 123,352
Total: 269,799

Voc. Ed. Enrollment by Race:*
Negro: 66,506
Spanish Surnamed Americans: 1,016
American Indians: 669
Oriental: 706
Other: 267,486

Voc. Ed. Enrollment by Location:*
SMSA: 201,781
Central City: 66,896
Non-SMSA: 134,602

*Figures include 66,584 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 21,144
Distrib. Ed: 52,472
Health: 4,974
Cons. & Hmkg.: 44,975
Occup. H.E.: 1,667
Office: 60,647
Technical: 4,524
Trade & Ind: 75,922

Occupationally Oriented Enrollments:
Gen. Business: 22,438
Gen. Agriculture: 0
Industrial Arts : 44,398

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : 4,666
Total # Voc. Ed. Teachers : 7,765

Total Disadv. Voc. Ed. Enrollment: 45,909
Total Hndcpd. Voc. Ed. Enrollment: 5,658
Total Coop Enrollment: 19,503
Total Work-Study Enroll: 772

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $12,497,312
Total Fed. Expenditures: $ 12,243,997
Total State/Local Expenditures: $ 32,743,863
Expend. by Location: SMSA: $ 19,141,153
Central City: $7,096,372
Non-SMSA: $ 25,846,687
Total Expenditures for Disadv: $ 9,612,126
Hndcpd: $ 1,042,720

Total Occup. Reported USDL Enrollments:
MDTA: 3,561
EOA: 1,812

USDL Allocations in Occup. Reported Programs:
MDTA: 6,633,000
EOA: 8,776,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 2,471
MDTA OJT: 436
MDTA JOP: 631
MDTA Part-time: 23
Mainstream: 197
WIN: 123
New Careers: 182
PSC: 71
NYC-OS: 602
CEP: 637

Statistical Profile of Washington 1971-72

Population:

Total State: 3,409,169
15 - 19 yrs: 329,903
20 - 24 yrs: 295,964
25 - 64 yrs: 1,503,510

SMSA: 2,248,837
Central City: 909,550
Non-SMSA: 1,160,332

Negro: 71,308
Am. Indian: 33,386
Oriental: 29,536
White: 3,251,055
Other: 23,884

Total Public School Enrollment:
Elem (K-8): 556,913
Sec (9-12): 248,136
Post-Sec (13-14): 67,316
Adult : NA

Total Voc. Ed. Enrollment:
Sec: 125,767
Post-Sec: 58,701
Adult: 66,334
Total: 350,802

Voc. Ed. Enrollment by Race:*
Negro: 6,583
Spanish Surnamed Americans: 3,943
American Indians: 4,226
Oriental: 3,532
Other: 239,552

*Figures include 7,034 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: 155,441
Central City: 33,648
Non-SMSA: 102,395

Voc. Ed. Enrollment by Program:
Agriculture: 15,636
Distrib. Ed: 16,585
Health: 6,958
Cons. & Hmkg.: 70,561
Occup. H.E.: 6,570
Office: 61,837
Technical: 9,185
Trade & Ind: 55,550

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: 0
Industrial Arts : 83,353

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: NA
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 5,852

Total Disadv. Voc. Ed. Enrollment: 10,946
Total Hndcpd. Voc. Ed. Enrollment: 4,860

Total Coop Enrollment: 5,773
Total Work-Study Enroll: 467

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 7,843,116
Total Fed. Expenditures: $ 8,084,173
Total State/Local Expenditures: $ 44,507,678
Expend. by Location: SMSA: $ 13,394,332
Central City: $ 6,377,121
Non-SMSA: $ 40,097,519
Total Expenditures for Disadv: $ 693,550
Hndcpd: $ 460,653

Total Occup. Reported USDL Enrollments:
MDTA: 6,002
EOA: 2,221

USDL Allocations in Occup. Reported Programs:
MDTA: 10,351,000
EOA: 16,225,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 4,191
MDTA OJT: 332
MDTA JOP: 1,371
MDTA Part-time: 108

Mainstream: 224
WIN: 725
New Careers: 4

PSC: 256
NYC-OS: 800
CEP: 212

Statistical Profile of West Virginia 1971-72

Population:
Total State: 1,744,237
15 - 19 yrs: 172,386
20 - 24 yrs: 128,653
25 - 64 yrs: 774,966

SMSA: 545,243
Central City: 221,139
Non-SMSA: 1,198,994

Negro: 67,342
Am. Indian: 751
Oriental: 741
White: 1,673,480
Other: 1,923

Total Public School Enrollment:
Elem (K-8): 296,949
Sec (9-12): 121,439
Post-Sec (13-14): NA
Adult : 33,024

Total Voc. Ed. Enrollment:
Sec: 38,334
Post-Sec: 2,685
Adult: 22,293
Total: 63,312

Voc. Ed. Enrollment by Race:*
Negro: 2,776
Spanish Surnamed Americans: 48
American Indians: 18
Oriental: 54
Other: 60,606

Voc. Ed. Enrollment by Location:*
SMSA: 27,360
Central City: 7,676
Non-SMSA: 36,142

*Figures include 190 students under grade 9.

Voc. Ed. Enrollment by Program:
Agriculture: 4,772
Distrib. Ed: 1,165
Health: 1,662
Cons. & Hmkg.: 21,596
Occup. H.E.: 1,161
Office: 14,395
Technical: 2,060
Trade & Ind: 16,501

Occupationally Oriented Enrollments:
Gen. Business: 10,986
Gen. Agriculture: 0
Industrial Arts : 17,594

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 199
Total # Voc. Ed. Programs : 1,781
Total # Voc. Ed. Teachers : 1,655

Total Disadv. Voc. Ed. Enrollment: 2,702
Total Hndcpd. Voc. Ed. Enrollment: 895

Total Coop Enrollment: 1,224
Total Work-Study Enroll: 221

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 5,352,783
Total Fed. Expenditures: $ 5,233,603
Total State/Local Expenditures: $ 9,264,822
Expend. by Location: SMSA: $ 3,882,490
Central City: $ 0
Non-SMSA: $10,615,935
Total Expenditures for Disadv: $ 1,523,414
Hndcpd: $ 811,673

Total Occup. Reported USDL Enrollments:
MDTA: 1,611
EOA: 2,029

USDL Allocations in Occup. Reported Programs:
MDTA: 4,670,000
EOA: 8,536,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 577
MDTA OJT: 368
MDTA JOP: 666
MDTA Part-time: 0

Mainstream: 40
WIN: 1,150
New Careers: 38

PSC: 174
NYC-OS: 626
CEP: 1

Statistical Profile of Wisconsin 1971-72

Population:

Total State: 4,417,731
15 - 19 yrs: 433,153
20 - 24 yrs: 337,098
25 - 64 yrs: 1,857,026

SMSA: 2,542,975
Central City: 1,345,887
Non-SMSA: 1,874,756

Negro: 128,224
Am. Indian: 18,924
Oriental: 5,348
White: 4,258,959
Other: 6,276

Total Public School Enrollment:

Elem (K-8): 677,250
Sec (9-12): 322,671
Post-Sec (13-14): NA
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 103,278
Post-Sec: 48,990
Adult: 101,227
Total: 253,495

Voc. Ed. Enrollment by Race:*

Negro: 7,706
Spanish Surnamed Americans: 1,636
American Indians: 1,369
Oriental: 342
Other: 242,442

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*

SMSA: 105,274
Central City: 49,716
Non-SMSA: 148,221

Voc. Ed. Enrollment by Program:

Agriculture: 28,964
Distrib. Ed: 14,295
Health: 9,577
Cons. & Hmkg.: 49,724
Occup. H.E.: 2,703
Office: 73,574
Technical: 7,921
Trade & Ind: 66,737

Occupationally Oriented Enrollments:

Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: NA
Total # Schools Offering Voc. Ed: 361
Total # Voc. Ed. Programs : NA
Total # Voc. Ed. Teachers : 7,577

Total Disadv. Voc. Ed. Enrollment: 15,892
Total Hndcpd. Voc. Ed. Enrollment: 3,316
Total Coop Enrollment: 3,883
Total Work-Study Enroll: 696

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 9,770,915
Total Fed. Expenditures: $ 9,190,528
Total State/Local Expenditures: $ 62,278,905
Expend. by Location: SMSA: $ 34,773,972
Central City: $14,750,033
Non-SMSA: $ 36,695,461
Total Expenditures for Disadv: $ 3,414,394
Hndcpd: $ 1,126,258

Total Occup. Reported USDL Enrollments:

MDTA: 5,578
EOA: 2,466

USDL Allocations in Occup. Reported Program

MDTA: 7,547,000
EOA: 10,068,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 3,676
MDTA OJT: 329
MDTA JOP: 1,469
MDTA Part-time: 104

Mainstream: 69
WIN: 529
New Careers: 0

PSC: 191
NYC-OS: 337
CEP: 1,340

Statistical Profile of Wyoming 1971-72

Population:

Total State: 332,416
15 - 19 yrs: 33,229
20 - 24 yrs: 24,807
25 - 64 yrs: 145,382

SMSA: 0
Central City: 0
Non-SMSA: 332,416

Negro: 2,568
Am. Indian: 4,980
Oriental: 858
White: 232,024
Other: 986

Total Public School Enrollment:

Elem (K-8): 58,755
Sec (9-12): 27,674
Post-Sec (13-14): 8,369
Adult : NA

Total Voc. Ed. Enrollment:

Sec: 15,089
Post-Sec: 1,617
Adult: 988
Total: 17,694

Voc. Ed. Enrollment by Race:*

Negro: 265
Spanish Surnamed Americans: 2,636
American Indians: 465
Oriental: 97
Other: 16,323

Voc. Ed. Enrollment by Location:*

SMSA: 0
Central City: 0
Non-SMSA: 17,694

*Figures include 2,092 students under grade 9.

Voc. Ed. Enrollment by Program:

Agriculture: 1,933
Distrib. Ed: 938
Health: 192
Cons. & Hmkg.: 4,271
Occup. H.E.: 115
Office: 6,282
Technical: 220
Trade & Ind: 1,392

Occupationally Oriented Enrollments:

Gen. Business: 2,600
Gen. Agriculture: 2,400
Industrial Arts : 2,612

Career Education Enrollment: 3,004
Total # Schools Offering Voc. Ed: 81
Total # Voc. Ed. Programs : 630
Total # Voc. Ed. Teachers : 855

Total Disadv. Voc. Ed. Enrollment: 2,314
Total Hndcpd. Voc. Ed. Enrollment: 294

Total Coop Enrollment: 1,636
Total Work-Study Enroll: 71

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,131,803
Total Fed. Expenditures: $ 846,273
Total State/Local Expenditures: $ 3,786,525
Expend. by Location: SMSA: $ 0
Central City: $ 0
Non-SMSA: $ 4,632,798
Total Expenditures for Disadv: $ 308,650
Hndcpd: $ 133,294

Total Occup. Reported USDL Enrollments:

MDTA: 518
EOA: 213

USDL Allocations in Occup. Reported Programs:

MDTA: 1,097,000
EOA: 619,000 *

*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst.: 314
MDTA OJT: 26
MDTA JOP: 178
MDTA Part-time: 0

Mainstream: 43
WIN: 77
New Careers: 0

PSC: 3
NYC-OS: 90
CEP: 0

Statistical Profile of Puerto Rico 1971-72

Population:

Total State: 2,712,033
15 - 19 yrs: NA
20 - 24 yrs: NA
25 - 64 yrs:

SMSA: NA
Central City: NA
Non-SMSA: NA

Negro: NA
Am. Indian: NA
Oriental: NA
White: NA
Other: NA

Total Public School Enrollment:
Elem (K-8): 559,205
Sec (9-12): 152,152
Post-Sec (13-14): 21,400
Adult : 78,657

Total Voc. Ed. Enrollment:
Sec: 50,292
Post-Sec: 16,080
Adult: 30,460
Total: 96,832

Voc. Ed. Enrollment by Race:*
Negro: 0
Spanish Surnamed Americans: 96,788
American Indians: 0
Oriental: 0
Other: 0

*Figures include 0 students under grade 9.

Voc. Ed. Enrollment by Location:*
SMSA: NA
Central City: NA
Non-SMSA: NA

Voc. Ed. Enrollment by Program:
Agriculture: 4,918
Distrib. Ed: 11,054
Health: 1,857
Cons. & Hmkg.: 30,179
Occup. H.E.: 4,213
Office: 20,284
Technical: 1,699
Trade & Ind: 22,628

Occupationally Oriented Enrollments:
Gen. Business: NA
Gen. Agriculture: NA
Industrial Arts : NA

Career Education Enrollment: 1,040
Total # Schools Offering Voc. Ed: 302
Total # Voc. Ed. Programs : 4,089
Total # Voc. Ed. Teachers : 2,670

Total Disadv. Voc. Ed. Enrollment: 57,221
Total Hndcpd. Voc. Ed. Enrollment: 1,692

Total Coop Enrollment: 3,495
Total Work-Study Enroll: 0

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 8,777,496
Total Fed. Expenditures: $ 9,610,772
Total State/Local Expenditures: $ 17,538,708
Expend. by Location: SMSA: $ 0
Central City: $ 0
Non-SMSA: $ 27,149,480
Total Expenditures for Disadv: $ 4,375,964
Hndcpd: $ 984,166

Total Occup. Reported USDL Enrollments:
MDTA: 2,201
EOA: 1,003

USDL Allocations in Occup. Reported Program
MDTA: 4,448,000
EOA: 10,911,000 *
*Allocations for New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst.: 1,267
MDTA OJT: 195
MDTA JOP: 733
MDTA Part-time: 6

Mainstream: 45
WIN: 455
New Careers: 0

PSC: 68
NYC-OS: 435
CEP: 0

Chapter VII

SUPPLEMENTARY REPORTS

The information being assembled by Project Baseline is too voluminous for adequate reporting in a single annual report each year. There are also areas of special concern, and areas of particular interest, in which initial Baseline data are significant but suggest additional investigation. This is being done as resources permit. Enough information and specialized data have been collected, and additional research planned, to issue a series of special supplementary reports. So users of this volume can anticipate the nature and general content of these reports, they are described below. All but two are expected to be available for distribution during the winter and spring of 1974.

A National Management Information System For Vocational Education and Manpower Training

This report is scheduled to be the first one published. It represents a major parallel effort during the second year of Project Baseline research. During the first year the research staff found that automation of vocational education management information was considerably advanced in many States, thereby greatly increasing the usefulness as well as reliability of the data being collected. A suggestion was made to the Congressional Appropriations Committees that the potential of a national automated system based on utilizing State and local systems be examined. The Committees agreed, and Project Baseline was asked to design a model.

The report will be in two parts: a description of the model, and a report on feasibility of implementing the model. The concept on which the model is based is use of the data processing of original school records as the basis of management information systems at the State, regional, and national levels. Standardized data elements needed for administrative and legislative decision-making would be passed on to succeeding levels on magnetic tape and combined for whatever analyses are needed.

The report will contain a description of the model in considerable detail, purposes for which the system might be used, lists of data elements needed, and various alternatives in detail to permit flexibility. A demonstration field test of the technology has been carried out with five States participating, and printouts showing various analyses of vocational education enrollments in these States are included. A plan of implementation will be suggested in some detail.

In the feasibility section of the report, past and present efforts to develop automated education information systems will be reviewed. These include approximately thirty-five to forty automated State vocational education systems in operation or being developed, and several regional and national systems that have been attempted.

Legal and administrative problems or constraints which might exist in any of the States were researched, and the results will be given. Similarly, cost data on the systems in operation have been collected when available, and these will be reported. Costs of reproducing data tapes, conversion to a common tape format and machine language, programming summary and analysis tables, and computer operations have been kept during the demonstration field test. These gross data are reduced to cost-per-file units (student, program, etc.), thus providing a basis for computing costs of operation if the model were implemented at any level and on any scale.

National inventory of education data processing: Implementation of the model would depend eventually on the extent to which school records are being processed in each school district and within the State. A current inventory of educational data processing throughout the United States is being compiled. This inventory, when completed, will be stored on magnetic tape, and printouts will be available. It will be constantly updated as new installations are made and this information is received. In this way, schools lacking data processing facilities or services can be identified and eventually provided with them.

A suggested first step toward implementation of the national model is to combine data tapes in vocational education from those States where automated systems are in operation, plus the U.S. Department of Labor. Project Baseline will do this during its third year of research. Actual implementation will begin with arrangements being made to tie local schools without computer services into nearby facilities or to add facilities of their own.

The authors of this report will be William Nightwine, director of field research on the Baseline staff, and C.O. Tower, newly appointed administrator of the national automated education information system for Project Baseline. They are former research coordinating unit directors in Ohio and Montana, respectively, and both have extensive experience in systems development.

An Appraisal of the Manpower Training Programs Established by Congress in the 1960s

The manpower legislation of 1962 and 1964 created a burgeoning list of training programs throughout the Nation which have raised questions by educators, economists, labor leaders, and Members of Congress. Many of the accomplishments in these programs -- and their failures -- may never be known. In spite of a very attractive and in some respects quite informative annual Manpower Report of the President, the details of operation remain clouded. The Department of Labor has never reported on the total numbers of trainees or actual expenditures for their training. Very few follow-up studies of completions have been made. There can be little doubt that a great many people have benefited, perhaps sufficiently to warrant strong continued support. On the other hand, persistent reports have been heard by Project Baseline field researchers of abuses, and of questionable results.

Members of Congress are particularly concerned about the extent to which overlapping and duplicating programs have been established in many communities, each competing for the same resources and students and perhaps uncoordinated with labor market needs. Attempts at consolidation have not been successful, partly because so little is known on which to base worthwhile legislation. In Volume I, based on the first year's research, Project Baseline reports considerable overlapping in resources. Beyond this, information being collected by the research staff is often difficult to assemble, interpret, and analyse.

The supplementary report dealing with manpower programs will probe into all of the sensitive areas, not to support or discredit any particular point of view, but to establish as much as possible of the factual picture. It will contain the results of two years' research by the Baseline staff, additional research by the author for the specific purposes noted above, and a variety of materials drawn from the body of literature available. It is intended to be informative and analytical.

Career Education in the U.S. Today: What It Is, Where, and the Results So Far

Possibly nothing has developed in American education in recent years with as much impact as career education. Paradoxically, no one knows what career education is. Dr. Sidney Marland, former assistant Secretary for Education, USHEW, who probably has done more than any other single individual to create support, has intentionally avoided defining the term. The North Carolina State University Center for Vocational Education has explored career education systematically in the local schools, and the Center staff probably has more information about what it is in action than can be found anywhere else. The U.S. Office of Education has assisted in the establishment of numerous career education programs in every State, and Dr. Sidney High in the Bureau of Adult Vocational Education undoubtedly has more first hand information about what is happening than any other individual. The Ohio State University Center for Occupational Research and Leadership has played a major role in establishing national career education models under sponsorship of the U.S. Office of Education. All of these agencies and individuals know a great deal about their respective parts of the whole; none of them knows if it is more than just the visible portion of an iceberg.

Project Baseline researchers have come to feel there is a submerged portion of the iceberg in existence in thousands of schools and school districts throughout the United States. The staff have collected voluminous materials in what seems an endless quest for the total picture. Its form and size cannot be measured, and only with great difficulty described. Nevertheless, it is possible by now to sketch in some of the outline, perhaps enough to suggest the substance of the iceberg. This will be done using Baseline research data and a number of other sources.

The purpose of a special supplementary report on career education is not merely to penetrate a little of the uncertainty but to indicate positive developments which have significance for vocational education in particular and for all education to some extent. The author and principal research analyst has not been selected, but will be someone who is recognized as an authority.

Impact of Vocational Education Research At the Federal and State Levels

Congress provided in the 1963 and 1968 legislation that ten percent of the basic grants to the States for vocational education must be spent for research. Since considerable change and updating, development of new programs, planning and accountability were required, it was agreed that a substantial amount of research would be needed. These funds have not been provided as fully as the law requires for many years, but a portion of this money has been provided and spent.

There are conflicting points of view as to what has been accomplished. Many vocational educators and administrators strongly support the use of vocational education funds for research and presumably are aware of significant benefits. Others are less enthusiastic. Members of Congress appear to be a little more impressed with the results of vocational education research than with some other Federal research programs, but remain to be convinced of their real value.

It is both unfortunate and unnecessary that more is not known about the impact of research on vocational education under the Federal programs and State programs. Project Baseline has accumulated extensive lists of projects completed and some information about their utilization, but getting the complete picture becomes formidable. Very few researchers have followed through with assessments of the uses made of their products. Funds are rarely, if ever, provided for this purpose. Yet, invariably, anyone working in the field comes across increasing references to research projects which have led to very substantial changes in vocational education.

A few examples will suffice to indicate their nature and impact.

An airplane mechanics research program at UCLA several years ago has resulted in changing the preparation of every airplane mechanic in the United States.

Virtually all of the cluster training for related occupations has been developed with vocational education research funds. An automated career guidance program developed in Illinois has been adopted by a large number of schools all over the United States and in at least two foreign countries. Nearly all States have research coordinating units established and supported by vocational education research funds, and these units serve as direct links between the researcher and the educator. Much of the planning and evaluation of State programs required under the 1963 legislation has been done with research funds. Nearly all of the automation of management information systems in vocational education has been developed with research funds.

The list is so long, and in some respects so bewildering as research leads to other research, then to still more during implementation, that an orderly accounting is quite difficult. Many persons in the State agencies and the U.S. Office of Education have talked about it, but no one has yet put together a systematic project-by-project audit trail. Project Baseline included two lengthy chapters merely listing projects in its original first-year report. These were taken out because they are so exclusively "laundry lists" of activities that the impact of what was produced is obscure.

A special supplementary report will attempt to put as much of the picture together as it is possible to know. There is a certain urgency, because if continued change and improvement of vocational education and manpower training depend on research, Congress and State legislatures may have to be convinced. The positive results, therefore, must be identified. Just as important, the failures and frustrations must be identified. Some of the funds probably have been wasted; it would be highly unusual if they had not. Im many cases, however, research has been well designed, properly carried out, and led to disappointing results. This is the nature of research. The Baseline supplementary report will attempt to present the information collected in more than two years of its own research, and will probe as deeply as it can into the gray and dark areas of both positive and negative results.

The author of this report will be the Director of Project Baseline, Dr. Arthur M. Lee. Dr. Lee has been a State Research Coordinating Unit Director, is a past president of the American Vocational Education Research Association, and is now a university director of research and grants. He is also a member of the National Advisory Council for Vocational Education, and of the Council's Committee on Evaluation.

Women in Vocational Education

Vocational education has always been designed for both males and females. In large measure, the training for girls has been in the area of homemaking, or home economics. But nursing, secretarial training and distributive education have grown substantially in the past few decades. In the two years covered by the first two Baseline reports, 1970-71, and 1971-72, females significantly outnumber males enrolled in vocational education. There was even a very slight increase of 0.1 percentage points in this direction from the first year to the second.

What this means, exactly, is not entirely reassuring to many advocates of greater economic independence for women. It is subject to controversy whether homemaking can be strongly supported as preparation for employment. Salaried employment requires other kinds of training. Even the fields traditionally open to women, such as nursing and office work are too limited in total employment demand to permit equality of economic independence with men. Rather rapid changes have been taking place in recent years concerning opportunities for women and their acceptance into broader occupational fields.

Are training opportunities keeping pace with employment acceptance? Are there, perhaps, problems in vocational education for women which act as barriers to broader employment opportunities and therefore to greater economic independence? The whole subject is of growing concern not only to women and leaders of women's groups but to educators and employers. It is of vital concern to Congress and the U.S. Office of Education, and to the National Advisory Council for Vocational Education. The subject has been investigated by a number of researchers, from a number of points of view, and a considerable body of information is available.

Project Baseline will assemble this information and present an analytical report containing both data and analysis in another special supplementary report. One of the best of the studies of a major segment of this subject is Dr. Marilyn Steele's chapter in Minorities and Career Education, a recent publication by Lawrence Davenport and Reginald Petty. Dr. Steele will also prepare and write Project Baseline's report on "Women in Vocational Education". She brings to the subject an extensive background in counseling, consultation, and research. She is currently Director of Program Planning and Development at the Mott Foundation.

The Preparation of Teachers for Vocational Education

With substantial changes taking place in vocational education since the Act of 1963, changes have had to be made in the preparation of teachers also. At any rate, this is a reasonable assumption. And with the large growth of enrollments, the great increase in programs offered, and the expansion of new programs into a great many more institutions and different grade levels, the need for teachers presumably has multiplied several times. These are, however, uneasy assumptions. Baseline research has been unable to collect much in the way of firm data to support them.

Information available at the State level, on the other hand, suggests that changes and updating of vocational teacher education may be encountering more serious problems than any other part of the program. Even the necessary numbers of teachers available appears to be in doubt. Volume I of this publication contains a discussion of the situation which was felt by the Baseline staff and by consultants to be quite disturbing. A recommendation based on those observations was made with considerable urgency. The problem if one does exist, is compounded by extremely poor data available on which to make assessments. Some States have far better data than others, but additional specialized research is almost certainly required to get enough of the picture to draw reliable conclusions.

The Impact of Vocational Education and Manpower Training on Target Populations: Ethnic Groups, the Disadvantaged, Handicapped, Unemployed and Unemployable Adults

In 1964 Congress passed the Economic Opportunity Act aimed directly at particular groups in the population whose access to employment and prosperity seemed to be hampered by socio-economic and physical problems. Four years later, in the Vocational Education Amendments of 1968, the same groups were singled out again to receive special attention in the schools. Very considerable amounts of money have been spent and continue to be spent. Whether the results have been all that were hoped for is not clear.

Numerous statistics and substantial number of special reports are available which throw some light on parts of the picture, but not on enough of it to arrive at satisfactory conclusions. Project Baseline in its two years of research has collected most of these materials, and is in the process of collecting more. In general, one side of the picture seems quite clear: The purposes and objectives of specially directed efforts leave little doubt of what was intended. The next part of the picture is somewhat obscure: Just what has been and is being done to carry them out? The part of the picture beyond that, the results being achieved, is dark, illuminated only by occasional follow-up studies focused on particular times and places.

The U.S. Office of Education has been seriously concerned for some time about the quality of data reported from the States, and the States in turn have been concerned over what they are receiving from the schools. One State has put a six-man audit team into the field solely to check on the validity of reports on which State and Federal reimbursement funds are based. Several million dollars were recovered the first year, and the number of handicapped students being reported dropped.

A number of States, on the other hand, have developed quite reliable reporting procedures and information systems, and all of the States appear to be making serious efforts to reach the target populations. The end results are still unclear. Completion and especially follow-up data in most States cannot identify the students who belonged to these special groups. Gross data are meaningful but tell only that given numbers of students have been identified by someone as belonging to one or another of the target populations, and have taken certain programs. It is essential that relationships between individuals and groups be adequately established and that a variety of circumstances such as location, sex, nature of programs offered, special assistance, and cost be related to the students reported.

In the manpower training programs individual data are available, although not as complete and, for earlier years, not as reliable as they should be. But very little use has been made of these data, which are keypunched from trainee enrollment forms and filed away by the Department of Labor. Project Baseline has worked extensively with the Department of Labor in getting summary printouts of some of these data. Additional work will be pursued in making computer analyses of various relationships for a special supplementary report.

Impact of Vocational Education and Manpower Training on the Labor Market

A great deal of attention has been given to the coordination of vocational education and manpower training with employment market demand. It is a hazardous effort. The Department of Labor has an elaborate classification system listing more than 20,000 occupational titles, and a taxonomy has been developed by the U.S. Office of Education matching several hundred of them with educational programs. But the two agencies have never been able to agree on a satisfactory grouping of the specific elements into clusters of the related programs. A tentative list of fifteen clusters is being used by the U.S. Office of Education in its evaluation of program results, but there are problems with the list that remain to be solved.

In the meantime, Department of Labor projection methodology in arriving at future employment has often been controversial. It is capable of producing fairly reliable results for large population areas, but with decreasing reliability as the areas are reduced. Small States are severely handicapped in using employment projections limited to their own borders. The results of sampling techniques used at local and even some State levels can be seriously distorted by unexpected changes in government industrial contracts, changes in technology and markets, transportation policy decisions made in Washington, the weather, and many other unpredictable variables. In one State the largest industrial employer and another large industrial employer do not participate in the State Employment Services' employment surveys, and any sample without them is known to be invalid.

Vocational education and manpower training programs are at least partially based on employment projections, whatever their validity. This is true of the manpower programs to a much greater extent than of the vocational education programs. But virtually no effort is made to know the results. Gross numbers of former students who are employed in the occupations for which they were trained are reported by States, these figures represent little more than a counting operation conducted throughout the fall and winter. They miss substantial numbers of persons entirely; they ignore temporary employment and temporary unemployment affected by a variety of economic factors; they do not take into account former students who, for reasons of their own, have voluntarily delayed their employment; and except in a few States they are incapable of being related to particular students with particular characteristics whose training took place under particular circumstances.

In spite of these difficulties, the impact of training programs on the employment market must be known, and a great deal of money and effort are being continually put into the attempt to know. Project Baseline will undertake to pull this information together, and add it to the results of its own efforts. It will be published as another special supplementary report sometime during the coming year.

Chapter VIII

SUMMARY AND RECOMMENDATIONS

SUMMARY

At first glance, this volume may seem repetitious following Volume I, since many of the statistics are not greatly different. This in itself is significant. There were no major changes in vocational education and manpower training from 1971 to 1972. There were numerous changes in detail. There were several notable changes within individual States. But even the national rate of growth in vocational education, while slowing down somewhat due to the effects of inflation and leveling off of total enrollments, remained substantially the same.

Why this should have been so is not difficult to explain. There were no new policies at the Federal level affecting preparation of American youth and adults for employment, and very little real change in Federal support. Where changes occurred at the State level, they are reflected within the tables in this report and noted in the text. There were not many of these, probably for the same reason that no significant change took place at the Federal level.

Apart from similarities in the national data, however, the material in Volume II differs considerably from that of the preceding volume. A much more detailed study of the sources of vocational and manpower information has been made, and this is reported in the second chapter. Numerous problems with the data being used, especially at the Federal level, have been discussed before and by this time are fairly common knowledge. They are identified and examined here as problems in definition, problems in communication, and problems in careless or dishonest handling of data. There are as many variations in State information systems as there are States, and the data reported nationally range from extremely good to highly questionable. As a whole they can hardly be considered accurate, but within the limit of definitions used, they are not necessarily unreliable. When all of the students in all vocational education programs in the United States in 1971-72 were added together, the number reported was 9,984,416. This represents literally what each of fifty different States, the District of Columbia, and Puerto Rico chose to define as vocational education. Yet in all probability there actually were about ten or ten and one-half million students enrolled in vocational education that year under any definition.

Perhaps the most notable development in vocational education and manpower training in 1971-72 was the increasing reliability of the data reported. Very substantial advances were made in the automation of State vocational education information systems, in local school record systems, and in the Federal manpower training information system. There was more activity than in the preceding year aimed toward the automation of all education reporting systems, but the vocational segment was and still is far out in front of the rest. The one exception to this is the post-secondary level, where state-wide automated information systems are virtually nonexistent, although some institutions may have excellent systems.

Many of the tables in this volume and the analyses of student, financial, and other data they represent, are again -- as in the first volume -- based on Federal reports which the States send to the U.S. Office of Education.

For the first time, it is now possible to compare two consecutive years of vocational education and manpower training, and to do this in considerable detail. The significant findings of the first year are sill evident. Vocational education continued to dominate entry-level job training in 1971-72. Ninety-seven percent of all persons enrolled in Federally reported programs in 1971-72 were vocational education students, up from ninety-six percent in 1970-71.

When industrial arts and general business are included nearly three-fourths of all high school students in the States from which information could be obtained were again enrolled in some kind of occupationally related courses. Total enrollments in vocational education and manpower programs per 1,000 population -- the actual reported extent of preparation for employment in the United States -- was up only slightly, 50.17 in FY 72 compared with 47.7 in FY 71.

Whether vocational enrollments increased in proportion to the increase in Federal support appeared doubtful on the surface, but when the inflated dollars in which that support was provided were reduced to constant dollars it held true. Federal expenditures increased from FY 71 to FY 72 by nearly $70 million, roughly eighteen percent on paper but considerably less in buying power. Total enrollments increased at the same time slightly more than nine percent. During the six-year period from 1966 to 1972 Federal expenditures increased by 98.3 percent in inflated dollars, but only 51.3 percent in constant dollars. Vocational enrollments increased 64.5 percent during the same period.

Federal support per student increased between FY 71 and FY 72 from $43 to $47, but again this represented a smaller gain, only $1, when the effects of inflation are added in. Federal support per student in vocational education was still lower in 1971-72 than it had been in 1965-66 in terms of constant dollars.

The great contrast between Federal expenditures per student in vocational education and Federal allocation per trainee in manpower training programs became even greater in 1971-72. The previous year the figures were $43 in vocational education, $1,875 in MDTA programs, $2,173 in EOA programs. In 1971-72 they were $47 in vocational education, $2,029 in MDTA programs, $4,326 in EOA programs.

Higher percentages of minority groups continued to be represented in vocational education than in the population. The scope of vocational education continued to cover the occupations in which an overwhelming majority of workers are employed, and this, too, increased in 1971-72. And although not reported in this volume, research continued to play a very significant role in new program development. A special supplementary report on this activity will be issued during the next year. Variations among the States in the extent to which they participated in all of these developments, and the manner in which they did so, remained as great as was noted in the year before.

The impact of vocational education on the employment market not only continued to be evident, but data collected this year suggest an even greater impact than was known before. In thirty-seven States, the District of Columbia, and Puerto Rico, from which data could be obtained, ninety-six percent of all former vocational high school students available for work were employed. It is less important to know whether or not their employment was related to their training than to know that the employment rate of those available was this high. Almost certainly it was lower -- perhaps substantially lower -- among former high school students available for work who had not completed vocational education programs.

This year also for the first time, at the suggestion of an Advisory Committee of State Directors (see Preface to Volume II), data have been collected relating vocational education completions to projected labor demand. In twenty-two States, the District of Columbia and Puerto Rico, for which employment market demand projections were provided in State Plans, the labor supply from vocational agriculture in 1971-72 was thirty-six percent of the demand. It ranged from an excess of 727 percent in Utah to a supply of only seven percent of the need in Ohio. In distributive education the amount of demand supplied by vocational education completions was twenty percent, ranging from an excess of ninety-eight percent in the State of Washington to less than one percent of the demand in the District of Columbia. The supply of completions in health occupations was twenty-four percent of the demand; in occupational home economics it was twenty-three percent; in office occupations fifty-three percent; in technical programs forty-one percent; and in trade and industrial education twenty-seven percent.

Placement as well as completion figures related to projected demand are also interesting. These represent only those who were found to be employed after completing their programs.[1] Here, allowing for some difference between projected demand the year before and actual demand in 1971-72 (not available) was the actual impact of vocational education on the employment market. In agriculture at all levels placements were nineteen percent; in distributive education ten percent; in health occupations sixteen percent; in occupational home economics nine percent; in office occupations twenty-five percent; in technical programs twenty-five percent; and in trade and industrial education thirteen percent.

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[1] Completions as used in the following paragraphs include both those who completed programs and early leavers with marketable skills.

In breaking these figures down further, the impact of secondary, post-secondary, and adult programs can be shown. The following percentages are the extent to which vocational education students who had completed their programs the previous year and were employed in 1971-72 were meeting projected demands of the employment market for skilled manpower.

	Secondary Percentage	Post-Secondary Percentage	Adult Percentage
Agriculture	16.88	1.36	0.58
Distributive Ed.	7.12	0.96	2.29
Health Occupations	2.39	12.09	1.26
Occupational Home Ec.	6.63	1.37	1.27
Office Occupations	17.97	3.99	2.56
Technical Programs	5.12	15.99	3.61
Trade and Industrial	7.60	3.33	2.20

Vocational education at the high school level is continuing to expand, but while the number of students reached in 1971-72 was encouraging the over-all program fell considerably short of providing adequately for those who need preparation for employment. It fell particularly short of providing work experience for vocational students. Fifty-six percent of the total vocational education enrollment was at the high school level, representing roughly thirty percent of the national population age group 15-19 years. Only eight percent of these students were enrolled in cooperative work experience programs. Less than half -- forty-two percent -- of the high schools which offered vocational education in twenty States (Georgia, Idaho, Kansas, Maine, Maryland, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, West Virginia, and Wisconsin) from which data were available had any kind of cooperative programs at all. At the post-secondary level it was almost the same -- fifty percent of the schools in twenty-two States (Delaware, Georgia, Hawaii, Idaho, Kansas, Kentucky, Maine, Maryland, Missouri, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, and West Virginia) provided cooperative programs.

Nor had work study programs been adopted by schools on a national basis to the extent of the anticipated need of financially disadvantaged students. Less than one percent of the high school vocational students were enrolled in work study programs. Seventeen States (Arizona, Georgia, Louisiana, Massachusetts, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Utah, Vermont, and West Virginia) reported that only 13.7 percent of all high schools provided work study opportunities. At the post-secondary level, fifteen States (Arizona, Georgia, Hawaii, Kentucky, Louisiana, Maine, Minnesota, Montana, Nebraska, New Hampshire, North Carolina, Oklahoma, South Carolina, South Dakota, and Utah) reported that sixty-seven percent of the schools offered work study.

A strong suspicion can be entertained also that vocational education programs have not been fully developed for the disadvantaged and handicapped. Seven percent of the total secondary vocational programs were organized solely for disadvantaged students in twenty-seven States (Alaska, Arizona, Arkansas, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Maine, Maryland, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, West Virginia, Wisconsin, and Wyoming), and 3.1 percent for handicapped students in twenty-five States (Arizona, Arkansas, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Maine, Maryland, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, West Virginia, Wisconsin, and Wyoming). At the post-secondary level the figures were 7.6 percent for disadvantaged and 5.2 percent for handicapped.

A comparison of vocational education students from one year to the next is shown below. In a typical cross-section of the entire United States, each 1,000 students could be split up as follows in each group of characteristics.

Characteristics	1970-71	1971-72	Change
Males	446	445	-1
Females	554	555	+1
Consumer and homemaking	268	257	-11
Office occupations	242	233	-9
Trade and industrial occupations	224	236	+12
All other occupations	266	274	+8
Disadvantaged	132	139	+7
Handicapped	19	19	0
Secondary	564	563	-1
Post-secondary	125	131	+6
Adult	312	307	-5
Negroes	190	166	-24
American Indians	5	8	+3
Orientals	7	10	+3
Spanish-surnamed Americans	59	61	+2
All other ethnic groups	739	755	+16
California	132	122	-10
New York	73	76	+3
Texas	63	62	-1
Illinois	59	60	+1
Florida	48	51	+3
All other States and Territories	625	629	+4

One of the major thrusts of the Vocational Education Act of 1963 and the Amendments of 1968 was to broaden considerably the occupational preparation of students in the schools, both for those who previously received only an academic education and for vocational students. No previous figures are available on the actual percent of all high school students reported by the States as enrolled in vocational education programs, but in 1971-72 this was forty-one percent. With nearly half of the total high school population of the United States in a given year taking vocational education courses, there can be little doubt that the academic myopia of the past is being overcome. And almost certainly the Congressional legislation of the 1960s has had a major part in bringing this about.

Within vocational education, this broadening effect of the 1963 and 1968 legislation is shown by a declining percent of students enrolled in programs which at one time made up the overwhelming majority of vocational enrollments, agriculture and home economics. Agricultural enrollments had continued to increase nationally until 1967. There was a sharp drop in 1968, then a leveling off for two years, and another sharp drop in 1971. Then, for the first time in five years, there was an increase in vocational agriculture enrollments nationally from 819,880 in 1970-71 to 864,429 in 1971-72. This in itself is significant, for it suggests that agriculture as a career may have reached the end of a five-year decline.

Equally significant, however, is that as a percent of total vocational education, agriculture is still declining. In 1970-71, 9.0 percent of all vocational students nationally were enrolled in agriculture; in 1971-72 the figure was 8.6 percent, which represents a relative decline of 0.4 percentage points. The rate of decline shows virtually no change from the previous year. Agricultural enrollments as a percent of total vocational education have been dropping at least since 1961, and particularly since 1964.

Home economics (consumer and homemaking) has shown a somewhat similar drop as a percentage of total vocational enrollments, but this goes back only to 1964. In 1966 there was a leveling off, with a gradual decline since then which continued virtually unchanged through 1971-72. In actual numbers, however, home economics enrollments have been increasing noticeably at least since 1961, except for a drop in one year, 1965-66. This also continued unchanged through 1971-72. Other vocational growth patterns can be observed in the tables and figures in Chapters III and IV.

A more significant index of student commitment to vocational education than class enrollment may be membership in occupational youth groups. There are other factors accounting for the size of membership, of course, notably the existence or non-existence of local chapters of these organizations at individual schools. In 1971-72, three-fourths of all vocational agriculture students were members of their youth organization, FFA, in twenty-three States. Twenty-four States and Puerto Rico report thirty-two percent of consumer and homemaking students were members of their organization, FHA. In twenty-one States and Puerto Rico, fifty-two percent of the distributive education students belonged to DECA. Business and office students are not as strong in their membership in FBLA, but this probably is less of a measure of commitment than in other occupational areas. In seventeen States and Puerto Rico, eleven percent were members of FBLA. Twenty-one percent of trade and industrial students were members of VICA in seventeen States and Puerto Rico.

In Volume I Project Baseline reported that need for a better classification system of vocational education programs to relate enrollment to employment market demand was essential. The U.S. Office of Education is working with a number of States and individuals in developing a cluster taxonomy which promises to serve that purpose. In this volume a preliminary list of nineteen clusters has been identified and 1971-72 vocational enrollments are tabulated by number and percent in each cluster. The clusters and figures are highly significant, first as a new classification system which may be adopted nationally, and second as a more detailed look at the occupational distribution of vocational education enrollments than has been previously available.

Cluster	1971-72 Enrollment	Percent of Total Vocational Education Enrollment
Agriculture	651,923	6.48
Marketing	555,390	5.52
Health	334,913	3.33
Food Service	356,361	3.54
Accounting	333,414	3.32
Clerical	612,122	6.09
Secretarial	1,153,582	11.47
Industrial Mechanics	740,388	7.36
Construction	396,745	3.95
Electricity-Electronics	349,241	3.47
Metals	289,712	2.88
Child Care	212,739	2.12
Clothing	471,719	4.69
Drafting	139,622	1.39
Graphics	68,836	0.68
Services	524,307	5.22

Forest Products	24,230	0.24
Home Economics	1,921,803	19.12
Miscellaneous	429,916	4.28

It has not been possible for Project Baseline, either the first year or the second, to publish in a single volume all of the data and information collected, nor is this necessarily desirable. Selection and condensation are needed. It is now possible, however, to present some of the information which did not get into the main reports as special supplementary reports. This will be done as time and resources permit, beginning early in 1974. In addition to the information already collected, each supplementary report will synthesize current research and writing from other sources. The purpose will be to focus particular attention on all that is known at the present time about each subject.

The subjects will include: A national management information system for vocational education and manpower training; An appraisal of the manpower training programs established by Congress in the 1960s; Career education in the U.S. today -- what it is, where, and the results so far; The impact of vocational education research at the Federal and State levels; Women in vocational education; The preparation of teachers for vocational education; The impact of vocational education and manpower training on target populations; And the impact of vocational education and manpower training on the labor market.

RECOMMENDATIONS

Just as the principal findings of the second year's research by Project Baseline are similar to those of the first year, the recommendations to be made by the project staff with the aid of a number of consultants are also very much the same. They are listed here again, with additional observations based on information presented in this report.

1. Legal and administrative coordination of all Federally supported manpower and vocational education programs should be established. The National Advisory Council for Vocational Education has gone on record in favor of combining all Federally supported occupational training under a single professional board. Other suggestions have been made to create a new Department of Education and Labor. A reorganization along these lines, consolidating both the administration and the budgeting process at the Federal level, would seem to have considerable merit.

2. A higher proportion of Federal appropriations should be allocated for vocational education. Substantially larger appropriations continue to be made to the U.S. Department of Labor than to the U.S. Department of Health, Education, and Welfare for essentially the same purpose with great disparity in the results. In FY 1972 vocational education spent $464,487,460 in Federal funds to help prepare 9,984,416 persons for employment; manpower programs were allocated $1,016,370,000 in Federal funds to prepare a reported 346,066 persons for employment.

3. Post-secondary and adult programs should receive first priority in an increase of Federal expenditures for vocational education. This is still true if vocational education appropriations at the Federal level are substantially increased, because with additional support the schools are capable of providing more employment preparation for these groups. Without additional funds, however, and even with relatively small increases in Federal support, the schools cannot expand to serve more students.

The growth of adult vocational education in 1971-72 was only slightly greater than the general population growth. Yet it is the adult population which is most immediately in need of upgrade training and retraining in our rapidly changing technological society. A new thrust should be directed at national expansion of adult vocational education to extend training opportunities for all adults in all communities in all States.

4. Vocational education at the secondary level should continue to place increasing emphasis on clusters of occupationally related programs. The cluster approach to training seems to have merit, especially at the secondary level, and provides an excellent classification system for relating the product of training to employment demand at all levels. Nineteen clusters are identified in this report, using a defensible rationale of grouping jobs according to common competencies. Further rigorous research should be conducted to determine the validity of this nineteen-cluster taxonomy and its national adoption by vocational education and manpower training.

5. Congress and the State Legislatures should provide some kind of special funding for a follow-up system in all institutions where Federal and State funds are used to prepare persons for employment. Questions can be raised about the wisdom of appropriating nearly $1.5 billion each year for job training at the Federal level without more evidence than is now available that satisfactory results are being obtained.

A variety of placement and follow-up systems are to be found in vocational education. Most of the actual work is carried on by local schools. State follow-up systems are often superimposed on the local systems, and placement is left almost entirely to the local schools. This is an area of critical importance in which State coordination and support should probably be increased along with Federal support.

6. The recommendations made last year that Congress and the U.S. Office of Education begin consideration immediately of a new national education information system are being acted upon. Not only the consideration but initial development is under way through efforts in both Congress and the U.S. Office of Education, as well as in most States and a large number of local school districts.

7. One additional recommendation is being made this year, which touches on several of those above.

The use of Federal reporting forms in vocational education, with their problems in definitions and communications, should be discontinued, and the forms replaced by a national uniform reporting and accounting system. If this recommendation were adopted by the Federal Government, its effect would go considerably beyond the most immediate result of providing more reliable information for decision-making at every level. Such a system would, of course, require standardized definitions in reporting detail, but these would be specific data elements rather than summary data and therefore easier to define. Such a system would also require automation, but virtually all large school districts are using computer equipment now and a growing number of States have developed automation at that level. It is unrealistic for the Federal Government not to be equally competent in its own reporting and accounting systems.

The same uniform reporting and accounting system for vocational education should be used by the Manpower Administration for its training programs, and the data from each should be compatible for State and national tabulation and analyses. This does not mean that RAS, the Manpower Administration's new automated information system, cannot be used or would have to be greatly altered. It would have to advance to the use of individual enrollee files, but this is anticipated in any case. The national vocational automated information system should be developed so that compatibility between these two systems could be built in.

A national uniform reporting and accounting system need not and should not be a further encroachment of the Federal Government upon State and local responsibilities. Rather, it should represent a strengthening of State and local control over their education and training programs. The system suggested here is one of national uniformity but State and local development. The means of control can be clearly established at these levels, with the Federal Government as initiator and coordinator.

Current reporting practices in vocational education and the manpower programs are too often either an assurance that there has been compliance with the law or an effort to justify funds used and focus favorable attention on the programs. They can serve a more useful purpose as management information systems. If a national uniform reporting and accounting system is developed, such a system and each of its components should be designed primarily as information systems to assist those who are responsible for the operation of educational and training programs.

In any case, the responsible use of public funds would seem to mandate such a system. Without it, control of educational programs is almost inevitably given up by those who should have responsibility and exercised instead by government personnel alone.

Additional recommendations based on research reported in this volume are:

8. New realistic definitions of "disadvantaged" and "handicapped" should be developed which can be applied logically to educational and employment training requirements, and used uniformly by all local and State educational agencies. These terms have created problems not only in reporting but probably in student guidance and program management as well. They have been defined, but controversy exists in the use of "disadvantaged" especially.

9. Congress and the U.S. Office of Education should either redefine the terms "post-secondary" and "adult" so that accurate and uniform data can be reported by the States, or new terminology more appropriate for the enrollment of persons beyond the secondary level should be adopted. These terms appear to be used interchangeably by some States, resulting in confusion in the way vocational education enrollments and expenditures are reported beyond the secondary level.

10. National level research should be undertaken to uncover the variables in educational management and in the general environment which contribute to each State's performance. Throughout this report, wide variations are evident in the performance of individual States in all areas of activity. Such variations have long been known, yet their reasons remain largely unexplored. This recommendation is not to make evaluations or comparisons on the basis of superior or inferior performance. It is to learn the reasons for differences, to gain information which may be helpful to the States as well as to Congress and the U.S. Office of Education.

Such national research in the causal factors of vocational education differences among the States need not be costly. The current resources of Project Baseline could be used for that purpose.

Appendix A

FEDERAL AND STATE AGENCIES

Federal Agencies

U.S. Department of Health, Education and Welfare
- Office of Education
  - Sidney Marland, former Assistant Secretary for Education
  - John R. Ottina, Assistant Secretary for Education (Acting)
  - Robert Worthington, former Associate Commissioner, Division of Occupational and Adult Education
  - Michael Russo, Acting Director, Division of Vocational and Technical Education
  - Harold Duis, Program Specialist, Program Supports Branch, Division of Vocational-Technical Education, Division of Occupational and Adult Education
  - Sidney High, Chief, Branch of Programs, Development and Operations, Division of Occupational and Adult Education
  - Robert Calvert, Jr., Chief, Branch of Adult Vocational Education Surveys, National Center for Education Statistics
  - Howard Hjelm, Special Assistant, Associate Commissioner for Division of Occupational and Adult Education
  - William S. Pierce, Deputy Commissioner for Occupational and Adult Education
  - Glenn Boerrigter, Director, Vocational Education Research
  - Leroy Cornelsen, Director of Program Analysis Unit, Division of Occupational and Adult Education
  - David Phillip, Chief, Special Project Branch, Bureau of Elementary and Secondary Education
  - Katherine Wallman, Chief, Federal-State Coordination Staff, Division of Inter-Governmental Statistics, National Center for Educational Statistics
  - W. Dale Chismore, Specialist, Educational Record and Reports
  - Elizabeth Simpson, Director, Curriculum Center for Occupational and Adult Education, Division of Occupational and Adult Education
  - Howard Matthews, Director, Division of Manpower Development and Training, Division of Occupational and Adult Education
  - Bates Johnson, Program Specialist, Division of Manpower Development and Training, Division of Occupational and Adult Education
  - Ronald Tarlian, Program Specialist, Division of Manpower Development and Training, Division of Occupational and Adult Education
  - Edward O'Neal, Division of Automated Data Processing

Evelyn R. Kay, Manpower Economist, Branch of Adult Vocational Education Surveys, National Center for Educational Surveys

George O. Coates, Contracting Officer, Division of Contracts and Grants

Charles T. Roberts, Information Specialist, National Center for Educational Statistics

Otto Legg

U.S. Department of Labor

Office of Manpower Administration

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Alabama

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Alaska

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Maryland

State Department of Education
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Massachusetts

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Department of Vocational Education
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Michigan

State Department of Education
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Minnesota

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Appendix B

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GLOSSARY

ACCOUNTABILITY: A process applied to a program which parallels and is used in conjunction with financial accounting. Expected outcomes of a learning experience are prestated in terms permitting pre- and post-testing to determine the extent to which objectives have been achieved and to permit a comparison of costs and benefits of various approaches to instruction. Stated objectives are expected to be realistic within legal, fiscal, and resource constraints and to reflect current population needs for occupational preparations, and current manpower and job requirements.

ADULT EDUCATION: Instruction designed to meet the unique needs of adults and youth beyond the age of compulsory school attendance who have either completed or interrupted their formal education. This may be provided by a school system, college, or other agency or institution (including a technical institute or area vocational school). (See 'occupational retraining program').

AGRICULTURE EDUCATION PROGRAM: A program of instruction designed to prepare students for activities in the production of plants and animals, the processing and distribution of agricultural products, and the providing of agricultural services.

APPRENTICE: A worker who is learning a recognized occupation in accordance with a written apprentice-training contract between him and his employer or employers which provides for a given period of planned work experience through employment on the job, supplemented by appropriate related instruction, and with other specified provisions of the arrangement.

APPRENTICESHIP TRAINING: An organized system providing young people with the manipulative skills and technical or theoretical knowledge needed for competent performance in skilled occupations. The program usually involves cooperation among schools, labor, and management, since apprentices learn the skills of their craft through on-the-job work experiences, and the related theoretical information through classroom instruction. The minimum terms and conditions of apprenticeship are regulated by State and local statutes or agreements.

AREA VOCATIONAL SCHOOL or CENTER: A school or program involving a large geographical territory usually including more than one local basic administrative unit. It offers specialized training to high school students who are preparing to enter the labor market. It also provides vocational or technical education to persons who have left or completed high school and are available for fulltime study. These schools are sponsored and operated by local communities or by the State.

BUSINESS EDUCATION (GENERAL): A program to provide students with information and competencies which are needed in managing personal business affairs and in using the services of the business world.

BUSINESS AND OFFICE EDUCATION PROGRAM: A program of instruction which consists of two parts: (1) office education, a vocational education program for office careers involving initial refresher and upgrading education leading to employability and advancement in office occupations, and (2) general business education. (See 'Business Education (General)').

BUSINESS SCHOOL: A non-public education institution offering courses in preparation for business occupations such as stenography, bookkeeping, and data processing.

CAREER EDUCATION AND GUIDANCE: Creates greater understanding of one's educational and occupational strengths in relationship to career requirements and opportunities, which lead to the formulation of realistic plans for the immediate future and to consideration of the effects of technological change on the individual in the long-range future.

CLUSTER TAXONOMY: An orderly classification by group, or cluster, of commonly held competencies in vocational training or performance.

COMMUNITY COLLEGE: (See 'Junior College').

COMPREHENSIVE HIGH SCHOOL: A secondary school with a number of departments (e.g., English, science, business, vocational) offering a diversified program to meet the needs of pupils with varying interests and abilities.

CONSULTANT: One or more persons without administrative authority whose advice is sought in improving policies and procedures such as those related to aspects of curriculum and instruction or those related to the administration of the school system and/or individual schools.

CONSUMER AND HOMEMAKING EDUCATION PROGRAM: Designed to help individuals and families improve home environments and the quality of personal and family life, and includes instruction in food and nutrition, child development, clothing, housing, family relations, and management of resources with emphasis on selection, use and care of goods and services, budgeting, and other consumer responsibilities.

COOPERATIVE EDUCATION PROGRAM: A combination program of study and practice conducted on an alternating schedule of half days, days, weeks, or other periods of time providing legal employment for pupils with organized on-the-job training and correlated school instruction.

DATA COLLECTION MEDIA: The medium or media utilized in gathering descriptive or quantitative data for use in evaluation, e.g., observation, standardized tests, survey instruments and accrediation and/or approval criteria. These data may be used in determining, among other things, the extent to which pre-determined objectives and purposes of the school system or school have been achieved, the extent to which given standards are met, and the comparison with previous performance or the performance of others.

DISADVANTAGED PERSONS: Pupils whose cultural background is so different from that of most pupils that they have been identified by professionally qualified personnel as needing additional educational opportunities beyond those provided in the usual school program if they are to be educated to the level of their ability. Certain types of programs for culturally disadvantaged pupils are referred to as "compensatory education programs". Individuals who are considered culturally disadvantaged may be classified into groups such as migrant children, functionally illiterate, and the non-English speaking.

DISTRIBUTIVE EDUCATION PROGRAM: An instructional program that prepares students for career positions involving competencies and responsibilities necessary for self-direction and emphasize the function of marketing, merchandising and management within the discipline of distribution.

DROP-OUTS: Pupils whose most recent formal education was in an elementary or secondary school and who withdrew from this school by dropping out.

DUPLICATED DATA: Statistical enrollment data that represent a single student or a single group of students counted two or more times in relationship to another variable.

ERIC: (Educational Research Information Center): A network of information dissemination centers involved in the distribution of research and development reports, results and descriptions on a nationwide basis.

EXEMPLARY PROGRAM: An instructional program supported with a combination of Part D (VEA'63), State and local funds for the purpose of developing and testing new ways to create a bridge between school and earning a living for young people who are enrolled in school or who have left school, and to promote cooperation between public education and manpower agencies.

FOLLOWUP AND EVALUATION SERVICES: Activities organized to determine what is happening to pupils while they are in school and after they have left school (either as graduates or drop-outs) so that the instructional program (including the guidance services) may be examined in terms of its appropriateness and its effect on the lives of pupils. In vocational education, this term refers to a research activity designed to determine what occupations are pursued by graduates and/or other former pupils in occupational programs and how effective their preparation was in relationship to their job requirements.

HANDICAPPED PERSONS: Pupils identified by professionally qualified personnel as having one or more physical handicaps (e.g., the blind, the hard of hearing, the speech impaired, and the crippled) or as having either permanently or periodically less than the usual amount of strength, energy and endurance and hence perhaps needing appropriate modifications in their educational program. Handicapped persons also include pupils who have an impairment or deficiency of the emotions that adversely affects the stability and/or performance of an individual.

HEALTH OCCUPATIONS EDUCATION: Courses and planned experiences designed to impart knowledge and develop understanding and skills required to support the health professions. Instruction is organized to prepare students for occupational objectives concerned with assisting qualified personnel in providing diagnostic, therapeutic, preventative, restorative, and rehabilitative services, and includes understanding and skills essential to the care and health services.

INDUSTRIAL ARTS EDUCATION PROGRAM: An area of education that involves the preparation, growth, and guidance of the individual for modern living through individual or cooperative group experiences in working with industrial materials, tools and processes and studying their social and economic significance to the individual and the nation. It involves a program of instruction organized to develop an understanding of the technical, consumer, occupational, recreational, organizational, social, historical, and cultural aspects of industry and technology. Learning experiences include activities such as experimenting, designing, constructing, evaluating, and using tools, materials, and processes which provide opportunities for creativity and problem solving. Also, sometimes used to mean the preparation of teachers in the field of industrial arts education.

IN-SERVICE TRAINING PROGRAM: An educational process that includes those policies, plans and procedures in which professionally related needs and tasks serve as the basis for the educational program of employed teachers and are focused on curriculum, improvement of instruction, technological changes, development of new techniques, materials or devices and attainment of identified objectives.

INSTITUTIONAL MANPOWER TRAINING PROGRAM: A program designed to combine the resources of the State Employment Service and Vocational Education and focus these resources on the unemployed and underemployed disadvantaged. It provides support services along with basic education, vocational training, orientation, counseling and testing in schools.

JOB CLUSTER: A term used to describe a group of jobs or occupations which have in common a group of skills the mastery of which are necessary for each. The term is usually applied to a curriculum structure designed to prepare a student for entry into a variety of occupations.

JUNIOR COLLEGE: An institution of higher education which offers usually the first two years of college instruction frequently grants an associate degree, and does not grant a bachelor's degree. It is either an independently organized institution (public or non-public) or an institution which is a part of a public school system or an organized system of Junior Colleges. Offerings include college transfer courses and programs; and/or vocational, technical, and semi-professional occupational programs or general education programs at the post-secondary instructional level; and may also include continuing education for adults as well as other community services.

LOCAL EDUCATIONAL AGENCY: Any basic educational administrative unit at the local level, such as a school and school district, who provides educational data to the State.

MANPOWER NEEDS: Those skill training programs that are designed to provide services for disadvantaged persons and are funded through the Manpower Development and Training Act of 1962, and the Economic Opportunity Act of 1964.

MIDDLE SCHOOL: A separately organized and administered school usually beginning with grades six or seven its equivalent and including at least three grades or years. Often called Junior High Schools.

MINI-GRANTS: Monetary grants of less than $1,000 that are made by a Division of Vocational Education from Part C funds to local education agencies, or individuals to stimulate research and development.

OCCUPATIONAL FIELD: A group of recognized occupations having many similarities including the following characteristics in common: the type of work performed; the basic aptitudes, and the acquired knowledge and training required; the tools, machines, instruments, and other equipment used; and the basic materials used.

OCCUPATIONAL HOME ECONOMICS: An instructional program which has as its goal the training for wage-earning occupations which utilize home economics knowledge and skills in such areas as child development, food and nutrition clothing and textiles, and family health. These occupations are at the subprofessional level.

OCCUPATIONAL TRAINING PROGRAM: A secondary school, junior college, or adult education program of studies designed primarily to prepare pupils for immediate employment in an occupation or cluster of occupations.

OCCUPATIONAL RETRAINING PROGRAM: An adult education program of studies designed primarily to upgrade employed workers in the specific vocation in which they are currently employed, or to retrain currently employed workers for a new vocation.

OFFICE EDUCATION PROGRAM: A vocational education program for office careers involving initial, refresher and upgrading education leading to employability and advancement in office occupations.

OFFICE OCCUPATIONS: Those activities performed by individuals in public and/or private enterprises which are related to the facilitating function of the office. They include such items as recording and retrieval of data, supervision and coordination of office activities, communication and reporting of information.

ON-THE-JOB MANPOWER TRAINING PROGRAM: An activity in which pupils in occupational program of studies spend a portion of their time in supervised employment (i.e., on-the-job training) in business or industry.

PLACEMENT SERVICES: Activities organized to help place pupils in appropriate educational situations while they are in school. in appropriate part-time employment while they are school, and in appropriate educational and occupational situations after they leave school, and to facilitate pupils' transition from one educational experience to another. This may include, for example, admissions counseling, referral services, assistance with records, and follow-up communications with employers concerning the performance of former pupils.

POST-SECONDARY VOCATIONAL EDUCATION PROGRAM: Designed primarily for youth or adults who have completed or left high school and who are available for an organized program of study in preparation for entering the labor market. The term is not limited to vocational education at the level beyond grade 12 if the vocational education needs of the persons to be served require vocational education at a lower grade level.

PRE-VOCATIONAL EDUCATION: Involves orientation to a number of different occupational areas and counseling designed to assist a person in determining the occupational area(s) to prepare for.

PROPRIETARY TRAINING INSTITUTION: A non-public agency independent of any church, or an individual, that operates a school system (or school) for business profit.

REHABILITATION PROGRAM: A program of studies and services designed primarily to restore in whole or in part the ability of disabled individuals to perform biologically, psychologically, or sociologically as persons not disabled. This includes rehabilitation center programs and vocational rehabilitation programs for restoring individuals to economic sufficiency through education or retraining.

RESEARCH COORDINATING UNIT (RCU): A vocational research organization at the State level whose purpose is the stimulation of research and development activities within the State, the performance of research and development activities and the dissemination of information on research and development activities.

SECONDARY VOCATIONAL EDUCATION PROGRAMS: Vocational education programs operating within public education facilities in grades 9 through 12.

STATE ADVISORY COUNCIL: A group appointed by the governor or an elected State board with representatives from business, labor, the community, and the vocational education administration which advises the State board, conducts evaluations and prepares reports for the National Advisory Council; provided for by the Vocational Amendments of 1968.

STATE EDUCATION AGENCY (SEA): An organization established by State law to carry out specified educational responsibilities of the State.

SUPERVISOR: The professional person responsible for the promotion, development, maintenance, and improvement of instruction in a given field and over a given area. Supervisors may operate at the local, area, or State level. Many States use the term consultants for these personnel.

SURVEY INSTRUMENT: A questionnaire, rating scale, or other printed form used in gathering information about the schools, the pupils, the community, or related factors including community opinion polls and follow-up studies of pupils who graduate, drop out, or transfer to other school systems.

TECHNICAL INSTITUTE: An institution, or a division of an institution offering instruction primarily in one ore more of the technologies at the post-secondary level.

TRADE AND INSUSTRIAL EDUCATION PROGRAM: Instruction planned to develop basic manipulative skills, safety practices, judgement, technical knowledge and initial employment in industrial occupations or upgrading and retraining workers employed in industry.

UNDUPLICATED DATA: Statistical enrollment data that represent a single student or a single group of students and the relationship of that individual or group to another variable.

VOCATIONAL EDUCATION: Vocational or technical training or retraining which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) under public supervision and control or under contract with a State board or local educational agency, and is conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians or subprofessionals in recognized occupations and in new and emerging occupations or to prepare individuals for enrollment in advance technical education programs but excluding any program to prepare individuals for employment in occupations generally considered professional or which require a baccalaureate or higher degree.

VOCATIONAL AND/OR TECHNICAL HIGH SCHOOL: A school which is separately organized under the direction and management of an administrator (such as a principal) for the primary purpose of offering education for semi-skilled, skilled or technical occupations.

WORK EXPERIENCE PROGRAM: A program having as its purpose the extension of vocational learning opprotunities for the student through part-time employment in the occupation for which his school instruction is preparing him.

WORK STUDY PROGRAM: A program designed to provide financial assistance through part-time employment, to students who have been accepted for full-time enrollment in vocational education programs and requre such aid in order to continue in vocational training. The part-time employment is based on the financial need of the student and is not necessarily related to his career objectives.

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Table V - Vocational Education Enrollment by Program, Level and Target Group for FY 1972.

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